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Nørre Lyngby

Thorsen, Grete; Ibsen, Lars Bo

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Aalborg Universitet
Geoteknikgruppen
Sohngaardsholmsvej 57
9000 Aalborg
Danmark

Kontaktperson
lektor Grete Thorsen
Tlf.: 98 31 49 82
Fax: 98 31 49 82
e-mail: stt@stofanet.dk

**Nørre Lyngby
Konsolideringsforsøg
Datarapport 2**

Udarbejdet Grete Thorsen

Kontrolleret Lars Bo Ibsen

Godkendt

**Nørre Lyngby
Konsolideringsforsøg
Senglaciale marint ler,
Glaciale ler og marint ler, Eem**

**AAU Geotechnical Engineering Papers
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1. Indledning

Denne datarapport 2 vedr. Konsolideringsforsøg, Nørre Lyngby indeholder resultater fra de samme konsolideringsforsøg som datarapport 1 (Thorsen, 2003). Forsøgene er tolket på en anden måde end i datarapport 1, og resultaterne er sammenlignet med resultater fra skønsformler samt med resultater ved tilpassede Terzaghi-kurver. Forsøgene er udført i forbindelse med et samarbejdsprojekt med Aarhus Universitet (Nørmark et. al., 1996). Prøverne er optaget dels i boring 1 og 2 ved punkt A og boring 3 ved punkt B, dels 2,2 m.u.t. langs linier, hvor der er udført seismiske profiler. Placering af boringer og seismisk linie fremgår af situationsplanen, bilag 1. Prøverne, der er optaget langs de seismiske profiler har fået prøvenummer svarende til stationering på linien. Der er konstateret en del opsvivende methangas på strækningen fra station 300 til station 500 (Nørmark et. al., 1996)

2. Formål

De aktuelle konsolideringsforsøg er udført som et led i en række laboratorieforsøg til bestemmelse af materialeegenskaberne i jorden. Det væsentligste formål med de udførte forsøg var, som beskrevet i datarapport 1 (Thorsen, 2003), at bestemme forbelastningsspænding, σ'_{pc} og tøjningsindeks, Q , samt variationer med den effektive spænding af krybningstøjningsindekset, ϵ_s , konsolideringsmodul, K , og konsolideringskoefficient, c_{k10} .

3. Forsøgsmateriale

Der er udført konsolideringsforsøg med:

- a) materiale optaget med en tyndvægget prøveoptager med diameter 70 mm: prøve 186, 358, 380, 462 samt prøve 2 og prøve 7 fra boring A1
- b) materiale fra kerneprøver: A1K6, A1K10, A2K2, B3K2 og B3K16

Ved alle forsøgene er prøverne tildannet til en diameter på 60 mm.

Der er udført 9 konsolideringsforsøg med prøver af senglacialt, marint, sandet og siltholdigt ler, med varierende sand- og siltindhold, et forsøg, B3k16, med en prøve af glacialt, sandet ler samt et forsøg, Prøve 7 fra boring A1, med en prøve af interglacialt Eem ler.

4. Forsøgsprogram

Forsøgene er udført i det danske konsolideringsapparat med prøvestørrelse $H \times D = 30 \times 60$ mm. Apparaterne havde en lille filtersten i det nederste trykhoved. Som drænvej er anvendt $H_d = 0,7 \times D$. Forsøgene er udført ved trinvis belastning og de enkelte trin har haft en sådan varighed, at det har været muligt at bestemme krybningstøjningsindekset, ϵ_s .

5. Tolkning af forsøg

I denne datarapport er der ved tolkning af tidskurverne anvendt en adskillelse af konsolideringstøjning og krybningstøjning som angivet af Moust Jacobsen (Jacobsen, 1992). Krybekurverne er

beregnet ud fra udtrykket $\epsilon_{\text{kryb}} = Q_s \times \log((t_A + t)/t_A)$, hvor Q_s er den maksimale værdi for krybnings-tøjningsindekset, ϵ_s .

For tidskurver ved spændinger op til den maksimale værdi af krybningstøjningsindekset, Q_s , er denne værdi anvendt. For tidskurver ved højere spændinger er den aktuelle værdi for krybnings-tøjningsindekset, ϵ_s , anvendt i stedet for Q_s .

Tiden, t_A , er fundet som den tid, der giver en krybekurve, der falder sammen med den sidste del af tidskurven, hvorved konsolideringstøjningen, ϵ_c , bliver konstant med tiden. Samtlige tidskurver med angivet adskillelse af konsolideringskurve og krybekurve fremgår af bilagene 2 – 12.

Tiden, t_A , vil være kraftigt faldende op til forkonsolideringsspændingen er nået, hvorefter den vil være næsten konstant eller meget svagt faldende. Da der er tale om bortdræning af vand både under konsolideringsprocessen og ved krybning, vil størrelsen af t_A , når materialet er i normalkonsolideret tilstand, sandsynligvis ligesom konsolideringstiden være afhængig af den aktuelle drænvej.

Ved tolkning af konsolideringsforsøgene er foretaget bestemmelse af forkonsolideringsspænding, σ_{pc} , tøjningsindeks, Q , krybningstøjningsindeks, ϵ_s , det maksimale krybningstøjningsindeks, Q_s , svarende til normalkonsolideret tilstand, samt konsolideringskoefficient ved 10^0C , $c_{k10} = k_{10} \times K / \gamma_w$. Konsolideringskoefficienten er beregnet ud fra følgende udtryk, $c_{k10} = (\pi/4) \times (H_d)^2 / t_c$, hvor t_c er den tid, der svarer til det punkt, hvor tidskurvens rette linie i vt- afbildning skærer værdien for konsolideringstøjningen, ϵ_c . Som drænvej er anvendt $H_d = 0,7 \times D$.

For hvert belastningstrin er også bestemt konsolideringsmodulen, $K = \Delta\sigma' / \Delta\epsilon_c$, som stort set svarer til tangentmodulen ved belastningstrinnets middelspænding.

Forkonsolideringsspændingen, σ'_{pc} , er bestemt ud fra:

- variationen af tiden t_A på de enkelte belastningstrin (bilag 2.1 – 12.1)

samt følgende kriterier (dgf-Bulletin 15, 2001):

- knæk i $\epsilon_s - \sigma'$ kurven, hvor ϵ_s opnår den maksimale værdi, Q_s
- knæk eller spring i $K - \sigma'_{\text{middel}}$ kurven
- afbøjning fra en ret linie i $\sigma' - \epsilon_c$ kurve

For samtlige prøver er udregnet et begyndelsesvandindhold ved hvert enkelt belastningstrin. Vandindholdet er beregnet ved at antage fuld vandmætning ved forsøgets afslutning og udregne et poretal. Derefter beregnes et begyndelsesporetal for materialet, en mætningsgrad og dermed et begyndelsesvandindhold, såfremt prøven havde været vandmættet fra start. Resultaterne fremgår af bilag 2.2 – 12.2.

6. Forsøgsresultater

Samtlige arbejdskurver og tidskurver samt tolkede forsøgsresultater fremgår af bilagene 2 – 12. De tolkede forsøgsresultater er sammen med målte og beregnede værdier angivet i skemaet på side 5. K er konsolideringsmodulen for $\sigma' < \sigma'_{pc}$. $OCR = \sigma'_{pc} / \sigma'_0$.

Resultaterne er sammenholdt med følgende erfaringsstørrelser:

- 1) For normalkonsolideret ler varierer den udrænedes forskydningsstyrke, c_{nc} , retlinet med den effektive spænding, σ'_0 : $c_{nc} = a_{nc} \times \sigma'_0$, $0,1 > a_{nc} < 0,5$ (Harremoes et. al., 1978). I nedenstående skema er angivet værdier for den målte vingestyrke, c_v , den effektive spænding, σ'_0 , samt c_v/σ'_0 . Som det fremgår er $c_v/\sigma'_0 > 0,5$ i alle niveauer, hvor de undersøgte prøver er optaget. Linien $0,5 \times \sigma'_0$ er indtegnet på boreprofilerne i bilag 1.
- 2) Forkonsolideringsspenningen kan ud fra fa. GEO's erfaringer skønnes til 4 á 5 gange den udrænedes forskydningsstyrke (dgf-bulletin 15, 2001). Som det fremgår af nedenstående skema er $\sigma'_{pc}/c_v > 4$ for prøve 186 og prøverne fra Boring A1. For prøve A2-K2 er bestemmelsen af σ'_{pc} meget usikker, muligvis på grund af en prøveforstyrrelse (kerneprøve). For prøverne 358, 380, 462 og prøverne fra boring B3 har det ligeledes været vanskeligt at bestemme σ'_{pc} . Det er alle prøver, der er optaget i den del af området, hvor der var dårlige seismiske resultater, og hvor der blev konstateret en del gas i jorden. Det kan være, at prøverne er delvis forstyrret på grund af gasudtrængning efter optagelsen.

Prøve		w	σ'_{pc}	σ'_0	K	Q	Q_s	α	OCR	c_v	c_v/w	c_v/σ'_0	σ'_{pc}/c_v
no.		%	kPa	kPa	MPa	%	%	Q_s/Q		kPa			
186	S	24	~300	~30	~5	~8	0,22	0,03	10	55	2,3	1,83	5,4
358	S	23	?	~30	~5	~6	0,2	0,03		355	15,4	11,8	
380	S	19,1	?	~30	~8	~6	0,16	0,03		360	18,8	12	
462	S	28,9	?	~30	~3	12	0,4	0,03		110	3,8	3,7	
A1-2	S	34,9	1000	110	~13	17	0,65	0,04	9,1	146	4,2	1,3	6,8
A1-K6	S	37,4	1500	160	~20	20	0,7	0,035	9,4	160	4,3	1	9,3
A1K10	S	49,5	700	145	~6	20	0,9	0,045	4,8	120	2,4	0,83	5,8
A2-K2	S	24	?	~20	~1	~5	0,15	0,03		70	2,9	3,5	
B3-K2	S	32,7	>30	~30	~1	11	0,55	0,05	~1	100	3,1	3,3	0,3
B3K16	G	18,6	~250?	~220	~10	6	0,25	0,04	~1,1	>710	38,2	3,2	0,35
A1-7	I	29	5000	~650	~90	23	0,9	0,04	9,1	>710	24,5	1,1	7

7. Kommentarer til forsøgsresultater

7.1 Sammenligning med skønsformler baseret på vingestyrke og vandindhold

I DS415:84 er anført følgende skønsformler for deformationsparametre baseret på vandindhold og vingestyrke/vandindhold:

- 1) Tøjningsindeks Q for primær konsolidering for normalkonsoliderede, gytjeholdige (dyndede) aflejringer: $Q = 60 \times (w-25)/(w+40)$ %, når w indsættes i %.
- 2) Konsolideringsmodul K for intakte, uorganiske leraflejringer: $K = 4000 \times (c_v/w)$ kPa, når c_v indsættes i kPa og w i %.

Fig. 1 viser de fundne tøjningsindeks som funktion af de beregnede begyndelsesvandindhold for de enkelte prøver. For de prøver, hvor den beregnede mætningsgrad $S_w < 0,9$ (måske på grund af gasindhold) er de angivne begyndelsesvandindhold muligvis for store, idet prøverne, som omtalt i

afsnit 6 kan være forstyrret efter optagelsen. Til gengæld har de senglaciale prøver en forkonsolidering, og de fundne begyndelsesvandindhold er derfor mindre end for en tilsvarende normalkonsolideret prøve.

På samme figur er indlagt kurven $Q = 60 \times (w-25)/(w+40)$ samt kurven $Q = 60 \times w/(w+90)$, som er fundet som den bedste tilnærmelse for de post- og senglaciale aflejringer fra Skagen 3 boringen (Thorsen, 2006). Desuden er med rød streg indlagt en linie svarende til $Q = 1/3 w$.

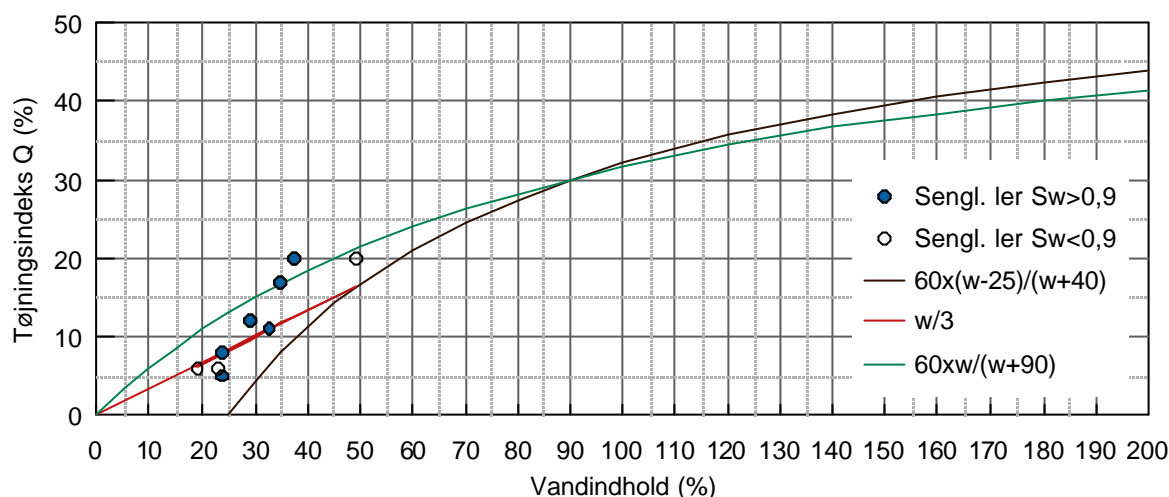


Fig. 1 Tøjningsindeks som funktion af vandindhold for senglaciale prøver

Fig. 2 viser de fundne konsolideringsmoduler, K , for $\sigma' < \sigma'_{pc}$ som funktion af c_v/w . På samme figur er med grønt vist den linie, der svarer til $K = 4000 \times c_v/w$ kPa (c_v indsættes i kPa og w i %) og med blå den linie, der svarer til $K = 2200 \times c_v/w$, som fundet for løse flager af plastisk ler (Thorsen og Knudsen, 2004).

For prøverne 358 og 380 samt prøven af glacialt ler, B3K16, er fundet meget små K værdier i forhold til de målte vingestykker. Det kan muligvis skyldes prøveforstyrrelse som omtalt i afsnit 6.

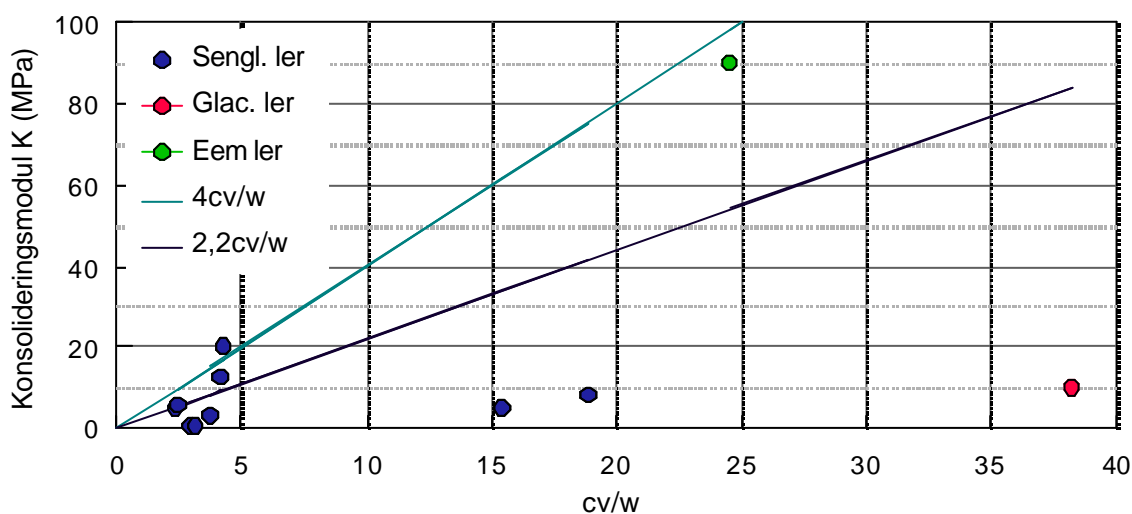
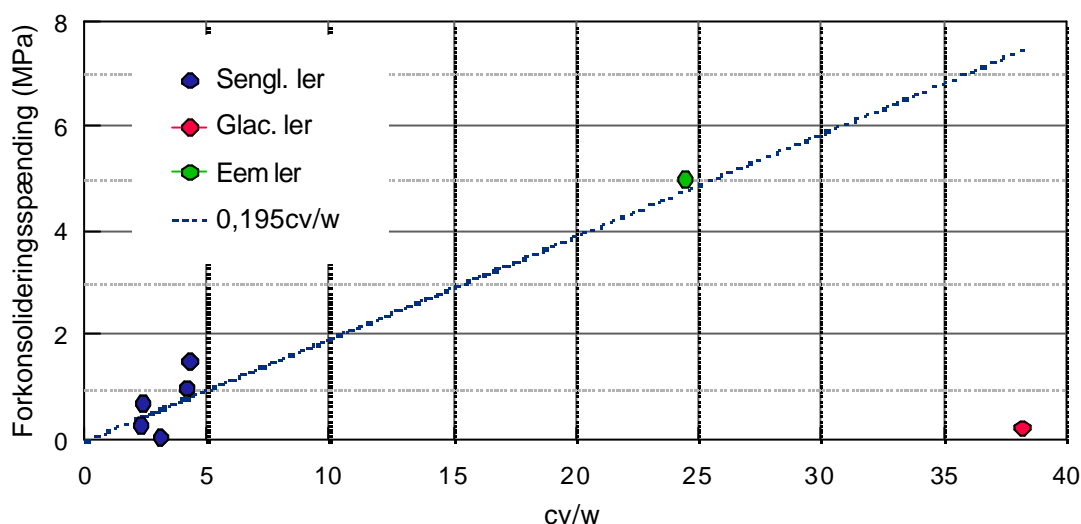


Fig. 2 Konsolideringsmoduler som funktion af c_v/w (c_v i kPa og w i %)

Fig. 3 viser de fundne forkonsolideringsspenninger, σ'_{pc} , som funktion af c_v/w (c_v i kPa og w i %). På samme figur er indtegnet en linie, der svarer til $\sigma'_{pc} = 195 \times c_v/w$ kPa, en relation, der er fundet for løse flager af plastisk ler (Thorsen & Knudsen, 2004). For en del af prøverne har bestemmelsen af σ'_{pc} , som det fremgår af afsnit 6, ikke været muligt eller meget usikker, det gælder bl.a. for de prøver, der er optaget på den strækning, hvor der er konstateret methangas i jorden (fra station 300 til 500 på den seismiske linie på bilag 1, (jfr. Nørmark et. al. 1996) og for det glaciale ler, som er fra boring B3.



Derfor er der for disse forsøg tilpasset alternative Terzaghi-kurver med en større værdi for σ'_{pc} . disse værdier er angivet med orange.

I skemaet er angivet værdier for $\Delta\epsilon_0$, hvor positive værdier svarer til, at prøverne har udvidet sig inden forsøgsstart, mens negative værdier tyder på intakte prøver med poreundertryk.

Prøve no.	σ'_0 (kPa)	c_v/w	σ'_{pc} (kPa)	Q (%)	σ'_{pc} (kPa)	σ'_{pc} (kPa)	Q (%)	Q (%)	$\Delta\epsilon_0$ (%)	$\Delta\epsilon_0$ (%)
			Forsøg	Forsøg	Terzaghi	Terzaghi				
186	~30	2,3	~300	~8	340	700	8	9		+1,2
358	~30	15,4	?	~6	380	3000	5,8	8		+3,1
380	~30	18,8	?	~6	500	3400	5	6		+3
462	~30	3,8	?	12	400	700	12	13		+1,4
A1-2	110	4,2	1000	17	800		19		-3	
A1-K6	160	4,3	1500	20	1000		22		-2	
A1K10	145	2,4	700	20	400	460	24	22	-2,2	+1,5
A2-K2	~20	2,9	?	~5	400		5,5		+4	
B3-K2	~30	3,1	>30	11	60		11		-1,4	
B3K16	~220	38,2	~250?	6	250	7000	6,2	15	-1	+3,2
A1-7	~650	24,5	5000	23	5000		24		-4,5	

Fig. 4 viser de ud fra tilpassede Terzaghi-kurver bestemte værdier af σ'_{pc} som funktion af c_v/w . Ved forudsætning om, at prøven har været forstyrret – har svulmet inden forsøgsstart, er det altså muligt at tilpasse en Terzaghi-kurve så $\sigma'_{pc} = 2 \times \sigma'_{\kappa} = 0,195 \times c_v/w$ MPa (c_v indsættes i kPa og w i %).

En svelling på mellem 1,2 og 3,2 % svarer til en udvidelse på 0,4 – 1mm, hvilket næppe er utænkeligt for de ret siltholdige prøver, der sandsynligvis har været udsat for udstrømmende methangas.

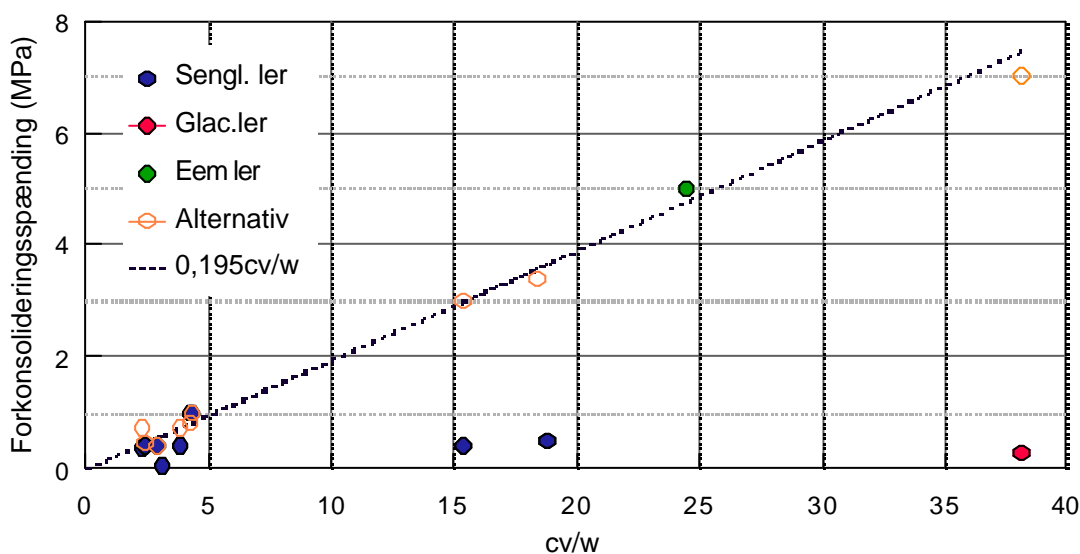


Fig. 4 Forkonsolideringsspenninger bestemt ved Terzaghi-kurver som funktion af c_v/w (c_v i kPa og w i %)

8. Konklusion

Der er udført 9 konsolideringsforsøg med prøver af senglacialt marint ler, 1 prøve af glacialt ler fra Weichsel og 1 prøve fra Eem interglacial.

Ved tolkning af forsøgenes tidskurver er anvendt en adskillelse af konsolideringstøjning og krybningstøjning som angivet af Moust Jacobsen (jfr. afsnit 5).

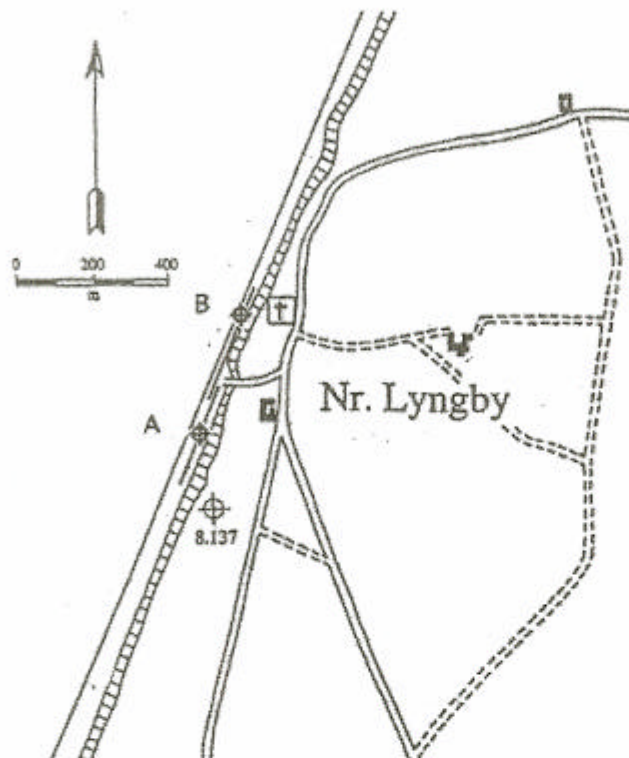
Resultaterne af forsøgene fremgår af afsnit 6. Resultaterne er sammenlignet med skønsformler, der er baseret på vingestyrke og vandindhold, jfr. afsnit 7.

I området fra station 300 til 500 på den seismiske linie (bilag 1) er konstateret methangas i jorden (Nørgård et. al., 1996). For de prøver, der er optaget i dette område har det været vanskeligt at bestemme en forkonsolideringsspenning. Ved at antage, at disse prøver har svullet ved forsøgsstart (måske på grund af udsivende gas) kan en tilpasset Terzaghi-kurve give et resultat, der svarer til $\sigma'_{pc} = 2 \times \sigma'_{\kappa} = 0,195 \times c_v/w$ MPa (c_v i kPa og w i %), en relation, der er fundet for løse flager af plastisk ler (Thorsen & Knudsen, 2004).

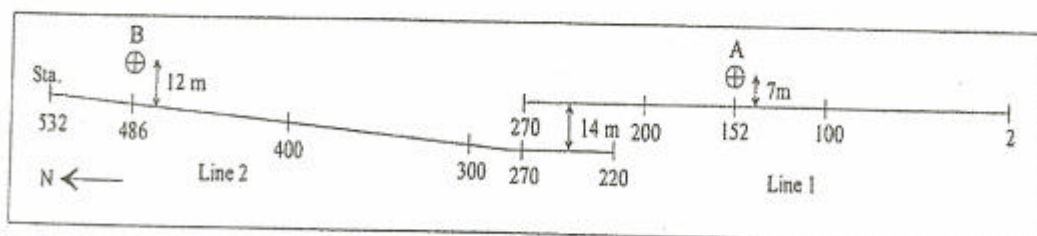
Konklusionen må nok være, at en del af prøverne er svullet efter optagning på grund af gasudsvivning men måske også fordi det er vanskeligt at holde et rigtigt undertryk i en meget siltholdig prøve, hvad enten det er en rørprøve eller en kerneprøve.

9. Referencer

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Oversigtsplan 1:20 000. Placering af seismiske linier samt boring A og B

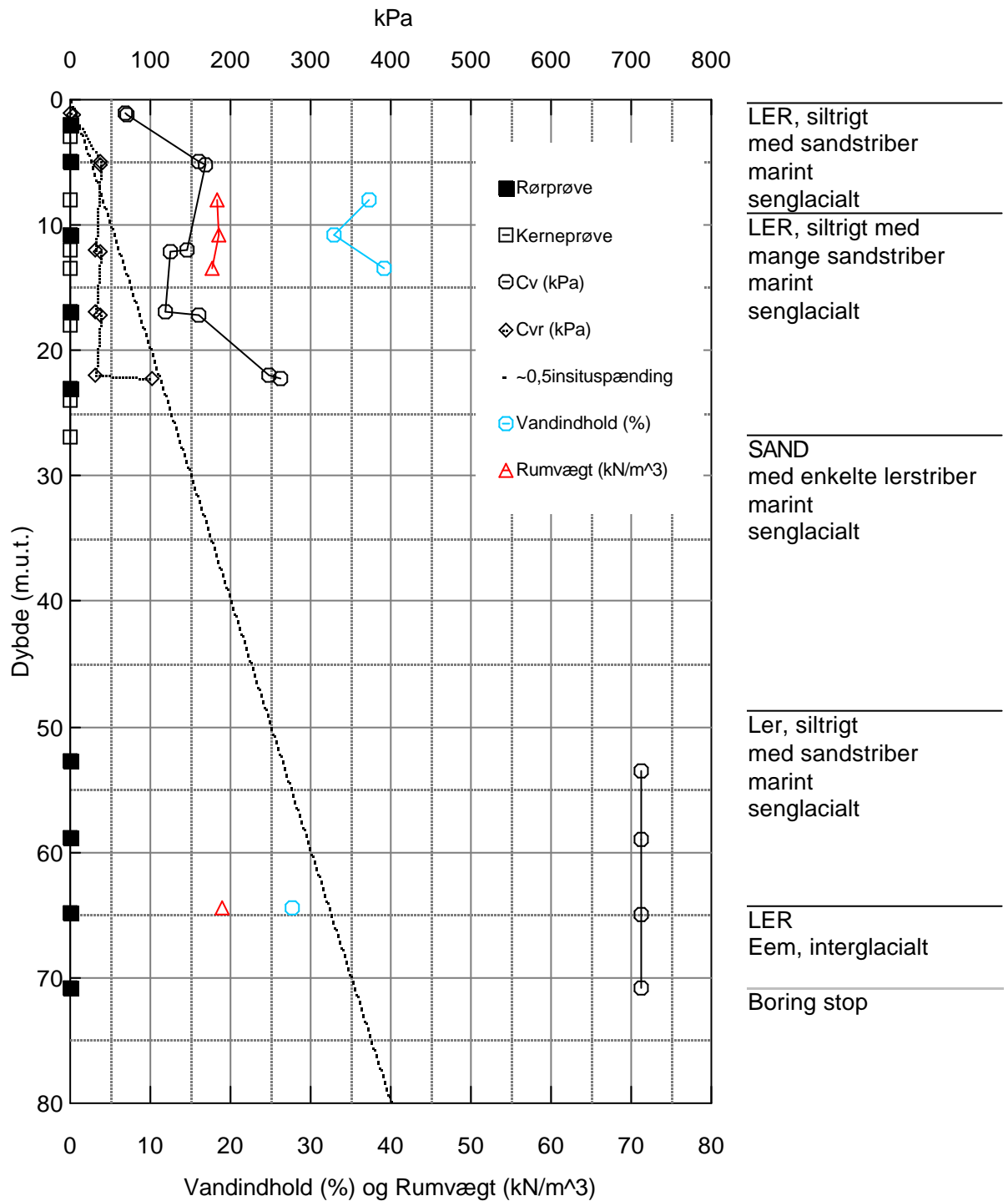


Situationsplan 1:4000. Stationering på seismiske linier og placering af boring A og B

Boring A1

Udtagne prøver, udførte vingeforsøg

samt vandindhold og rumvægt for de prøver, hvormed der er udført konsolideringsforsøg

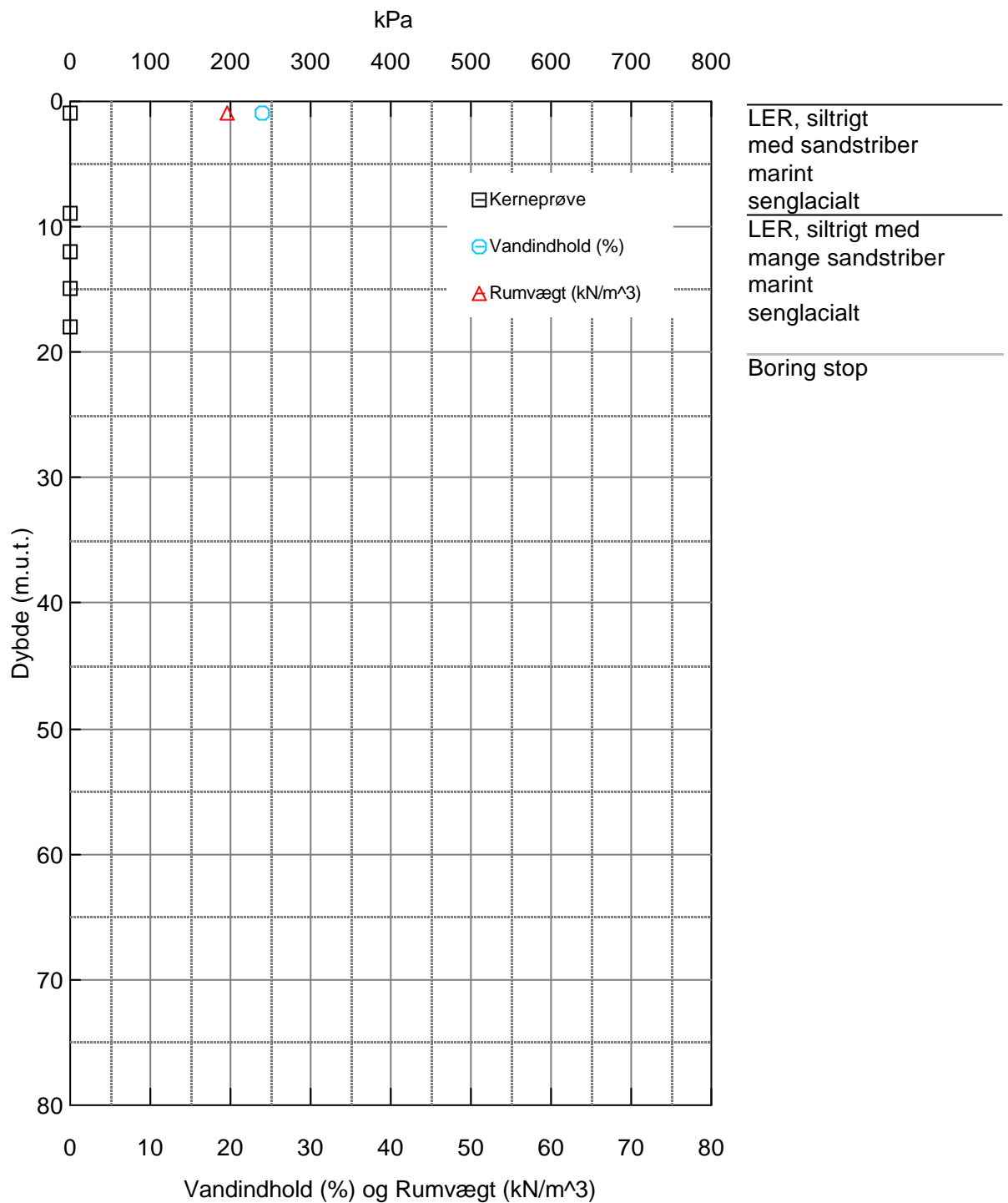


Job: Nørre Lyngby		AAU
		Encl. No: 1.2
Executed:	gt	Check:
Approved:		

Boring A2

Udtagne prøver

samt vandindhold og rumvægt for den prøve, hvormed der er udført konsolideringsforsøg

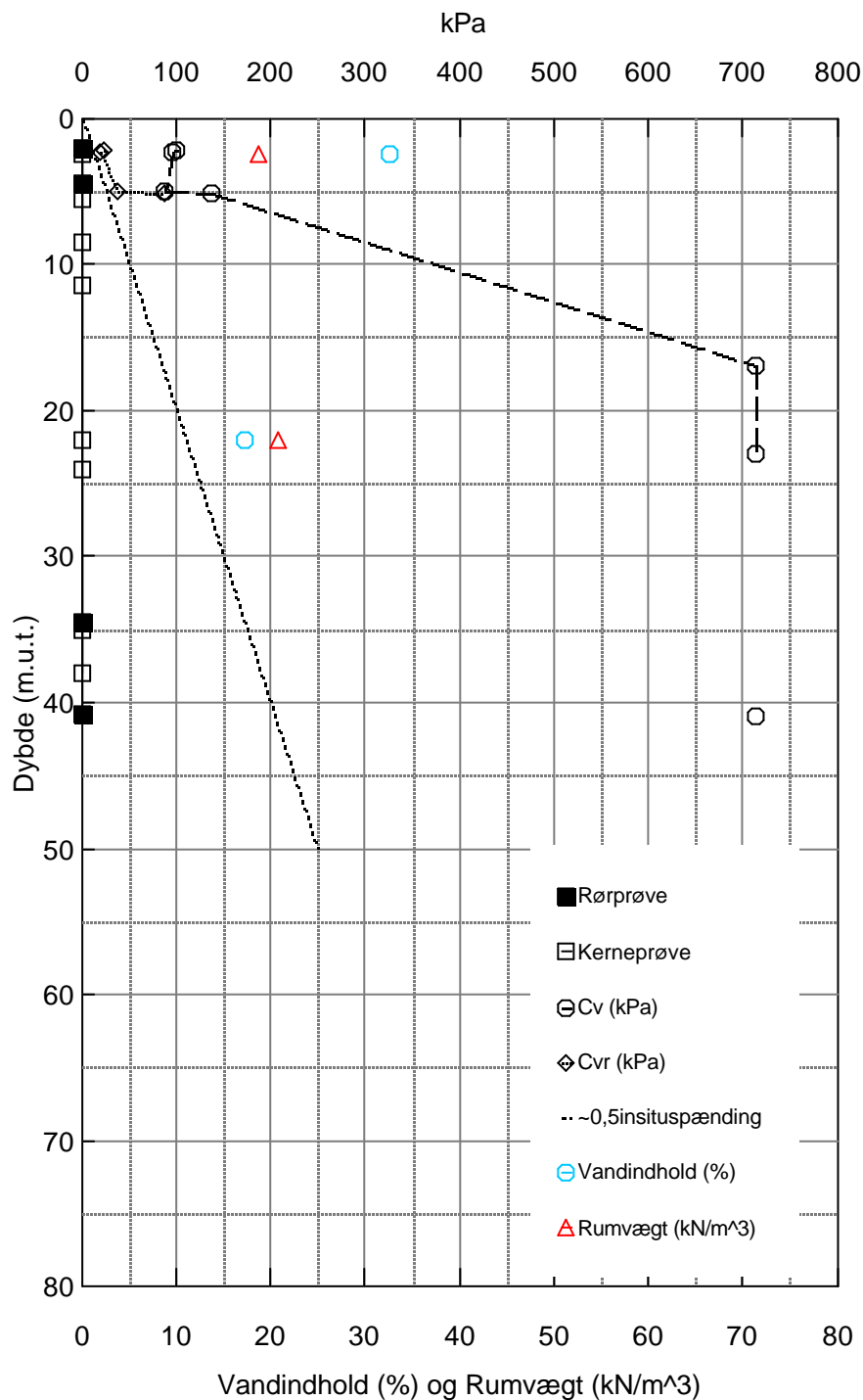


Job: Nørre Lyngby		AAU
		Encl. No: 1.3
Executed:	gt	Check:
Approved:		

Boring B3

Udtagne prøver, udførte vingeforsøg

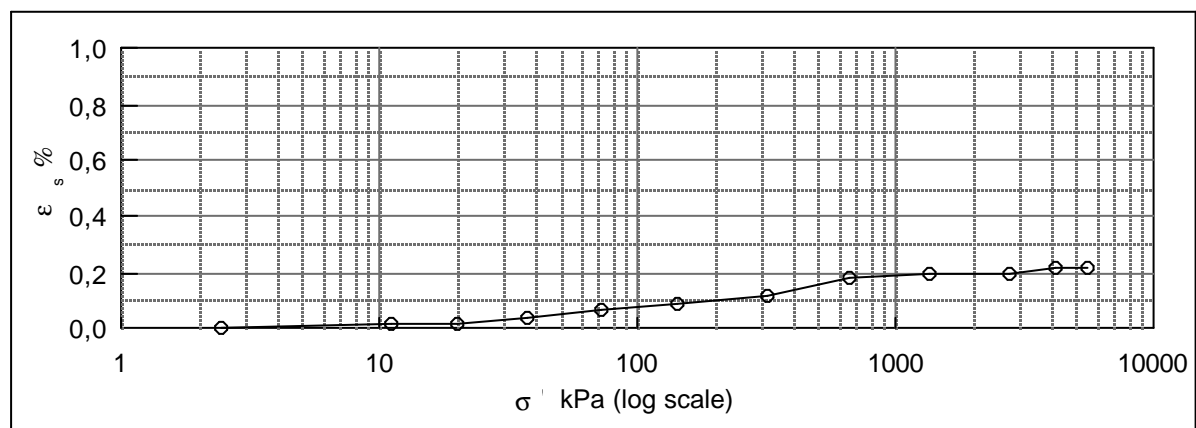
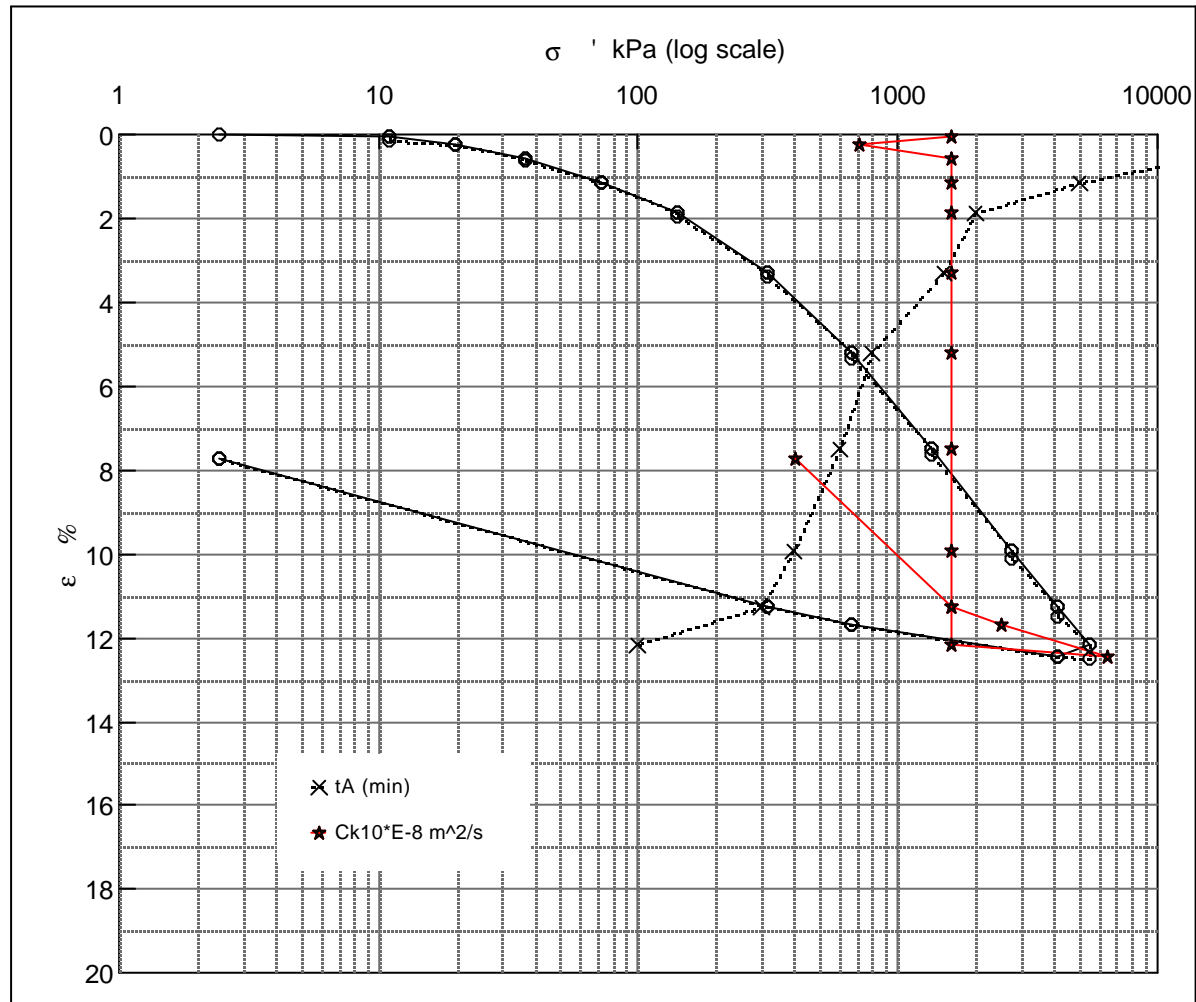
samt vandindhold og rumvægt for de prøver, hvormed der er udført konsolideringsforsøg



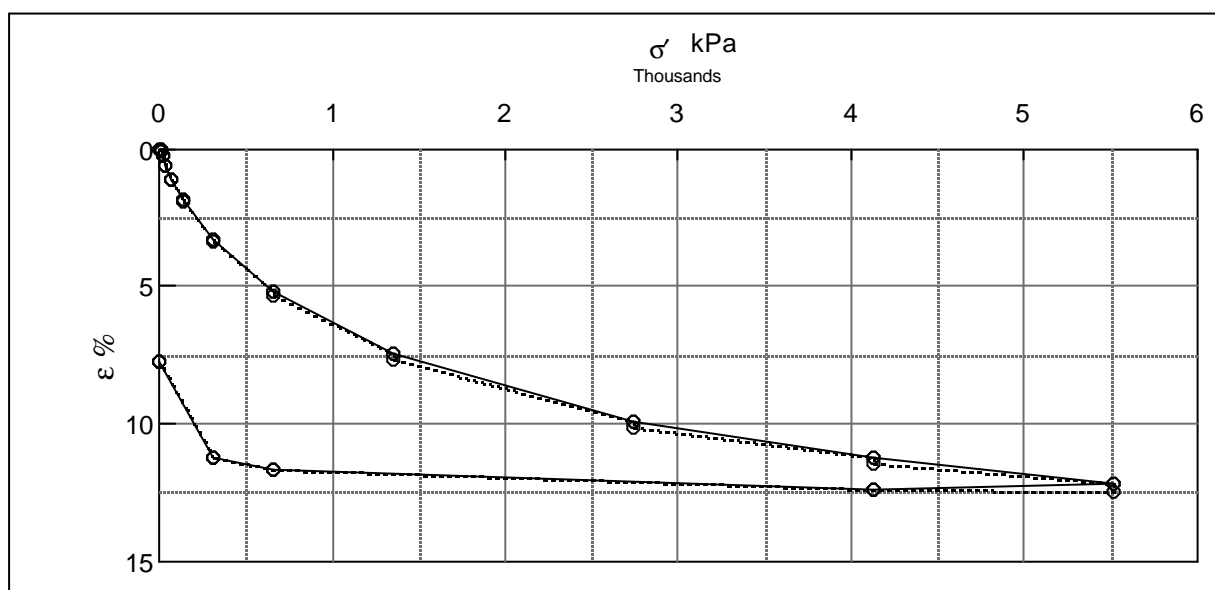
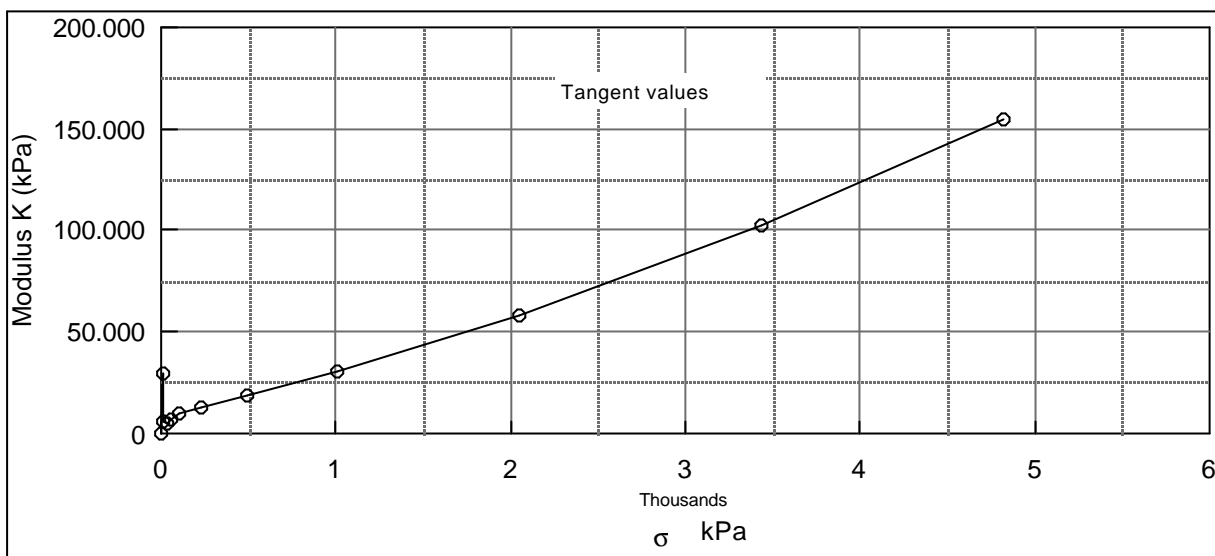
LER, siltrigt
 med sandstriber
 marint
 senglacialt
 STEN
 LER, sandet
 marint
 senglacialt
 STEN
 LER, meget sandet og
 SAND, leret
 Weichsel
 glacialt
 SAND, stenet med
 lerede partier
 Weichsel, glacialt
 LER, sandet,
 Boring stop

Job: Nørre Lyngby		AAU
		Encl. No: 1.4
Executed:	gt	Check:
Approved:		

Description of soil: Clay, marine, Lateglacial			Water content %	Before	After
			Bulk density Mg/m ³	22,5	19,4
			Grain density Mg/m ³	2,05	2,11
			Void ratio	2,7	0,61
Bor no :	Overburden pressure σ'_o	30 kPa	Void ratio	0,61	0,52
Lab. no: 186	Vane strength c_v	55 kPa	Degr. of Saturation %	99	100
Level : 2.2 m.b.s	CPT - value q_c	MPa	Dimension H x D mm	30x60	28.3x60



Job: Nørre Lyngby		AAU
		Encl. No 2.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ	ε _c	ε _s	Ck10	σ _m	K	w
		kPa	%	% / lct	m ² /s	kPa	kPa	%
Q	~8 %	2,4	0,00	-	-	-	-	24,02
Qs	0,22 %	11,1	0,03	0,02	1,6E-05	6,8	28913,1	24,00
σ _{pc}	~300? kPa	19,8	0,20	0,02	7,2E-06	15,4	5102,3	23,90
		37,1	0,56	0,04	1,6E-05	28,5	4818,9	23,69
		71,8	1,10	0,07	1,6E-05	54,5	6425,1	23,36
		141,2	1,85	0,09	1,6E-05	106,5	9252,2	22,91
		314,7	3,28	0,12	1,6E-05	228,0	12131,4	22,06
		661,6	5,19	0,18	1,6E-05	488,2	18165,3	20,92
		1.355,6	7,48	0,20	1,6E-05	1.008,6	30302,0	19,55
		2.743,4	9,89	0,20	1,6E-05	2.049,5	57586,4	18,11
		4.131,2	11,25	0,22	1,6E-05	3.437,3	102046,4	17,30
		5.519,1	12,15	0,22	1,6E-05	4.825,1	154203,5	16,76
		4.131,2	12,42		6,5E-05	4.825,1	-510232,0	16,60
		661,6	11,67		2,5E-05	2.396,4	460156,2	17,05
		314,7	11,24		1,6E-05	488,2	81064,9	17,30
		2,4	7,73		4,0E-06	158,6	8888,8	19,40

Remark:

Job:
Nørre Lyngby

AAU

Encl. No

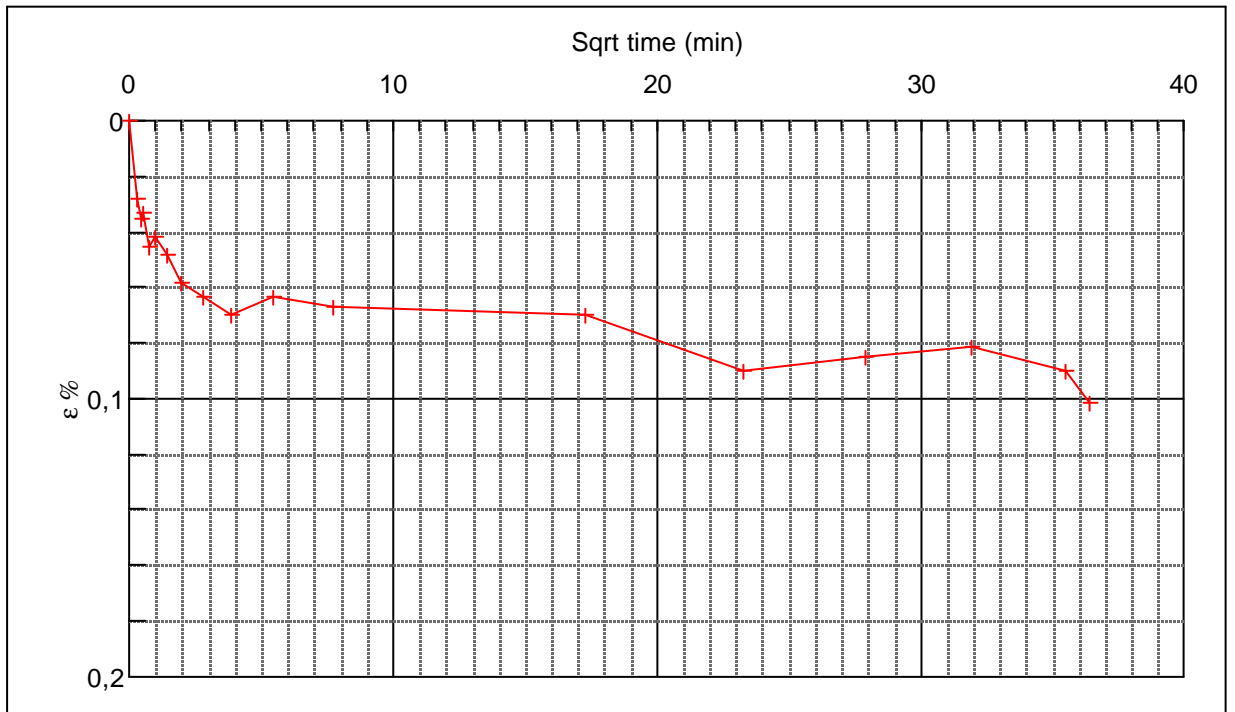
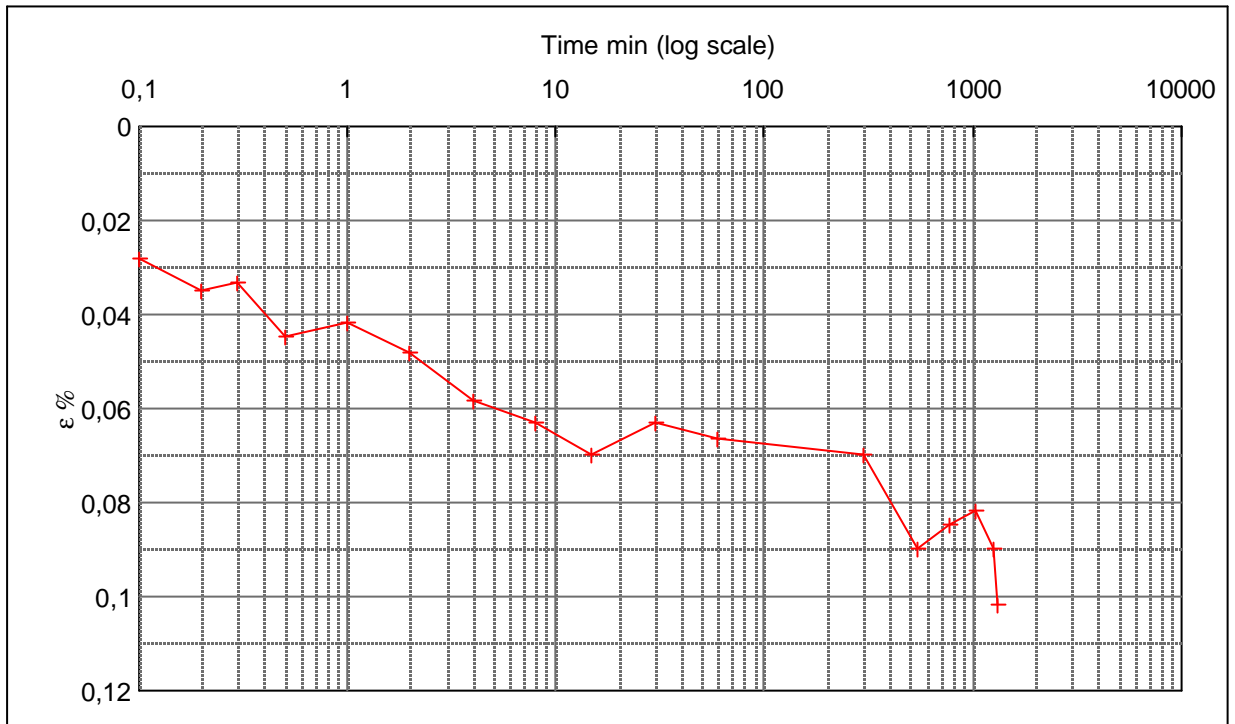
2.2

Executed: AMS/gt

Check:

Approved:

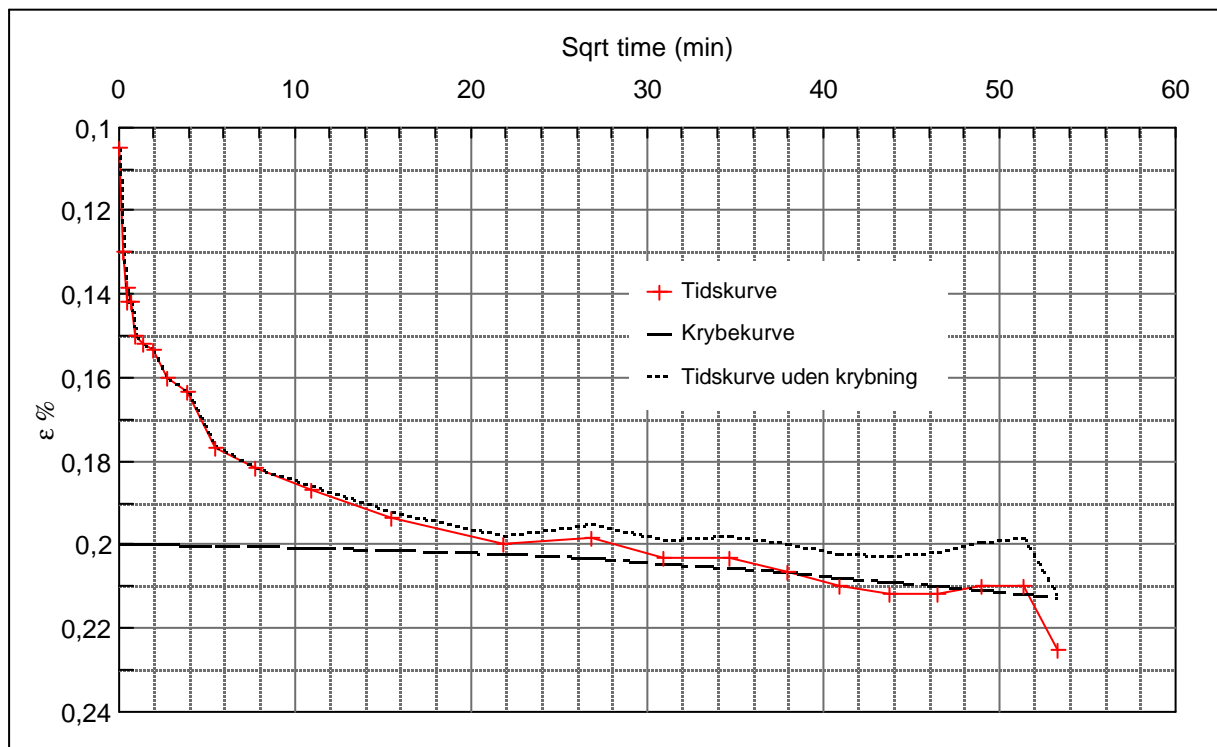
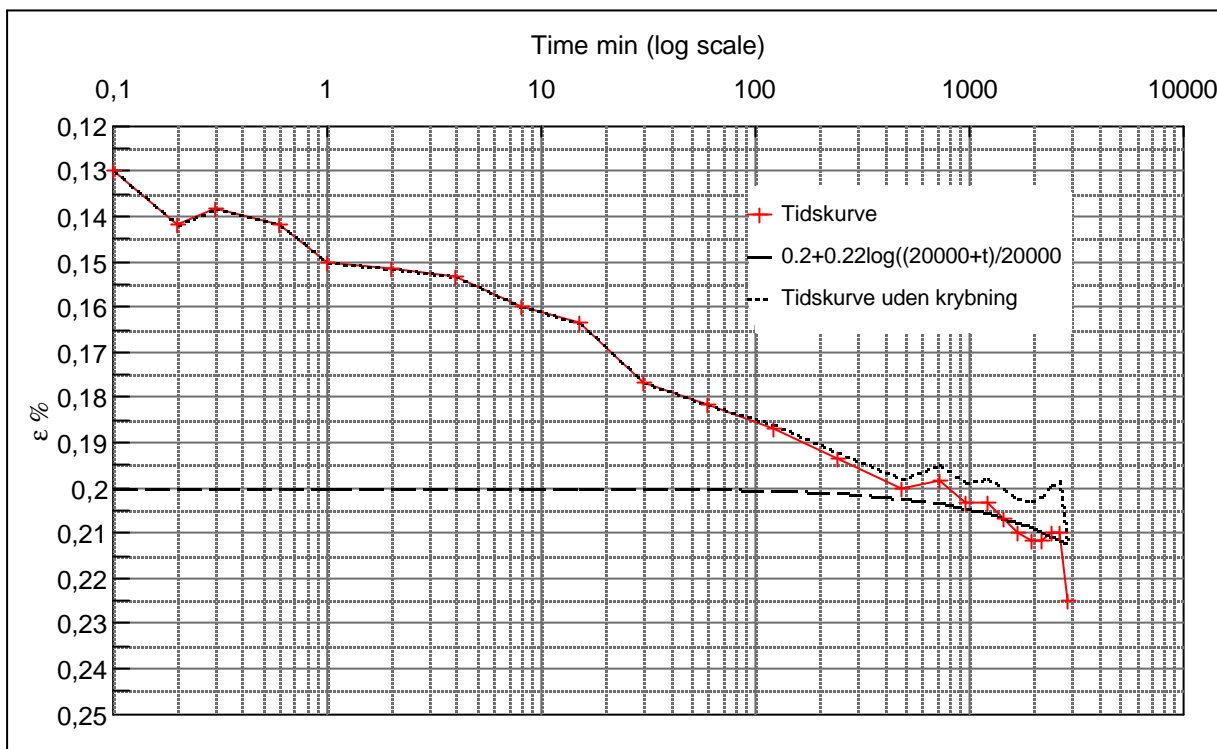
Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	2,4	ϵ_0	0,00	ϵ_c %	0,03	K i kPa	28.913
	After	11,1	$\epsilon_{\sim\#}$	0,10	ϵ_s	0,02	k10 m/sec	5,5E-09
					ϵ_{kyb}	0,07	ck10 m ² /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.3
Executed: AMS/gt	Check:
Approved:	

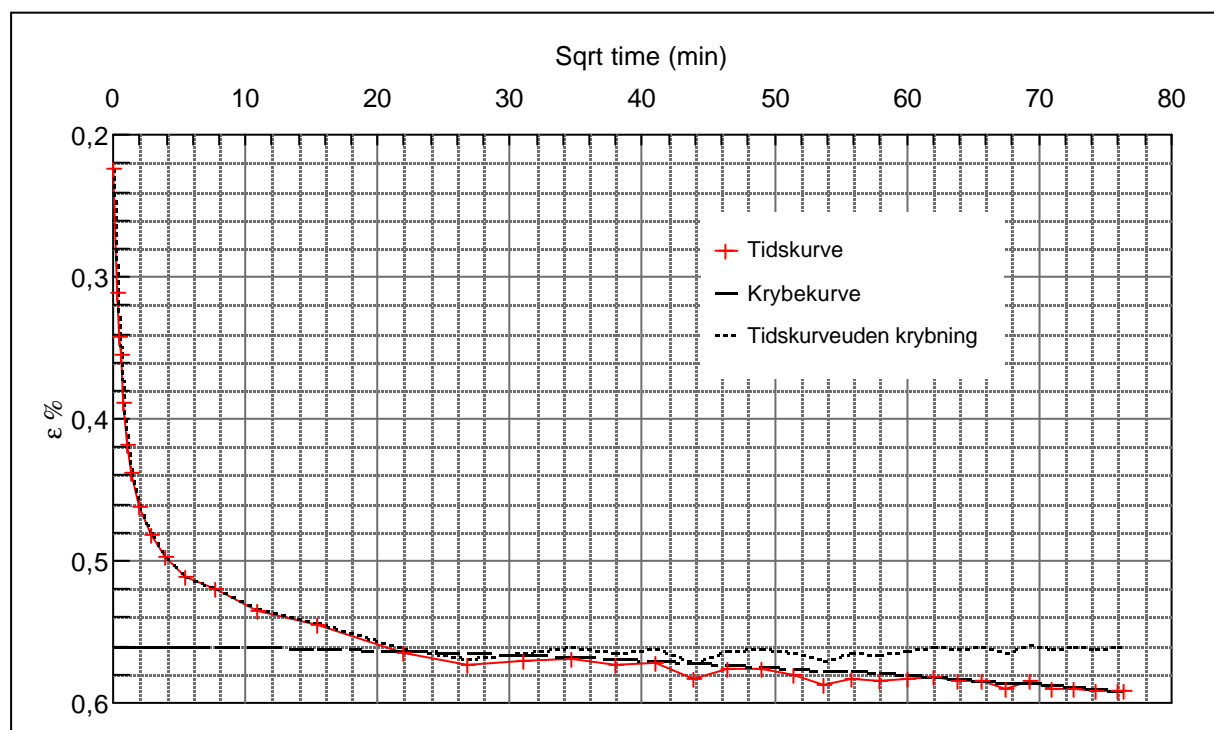
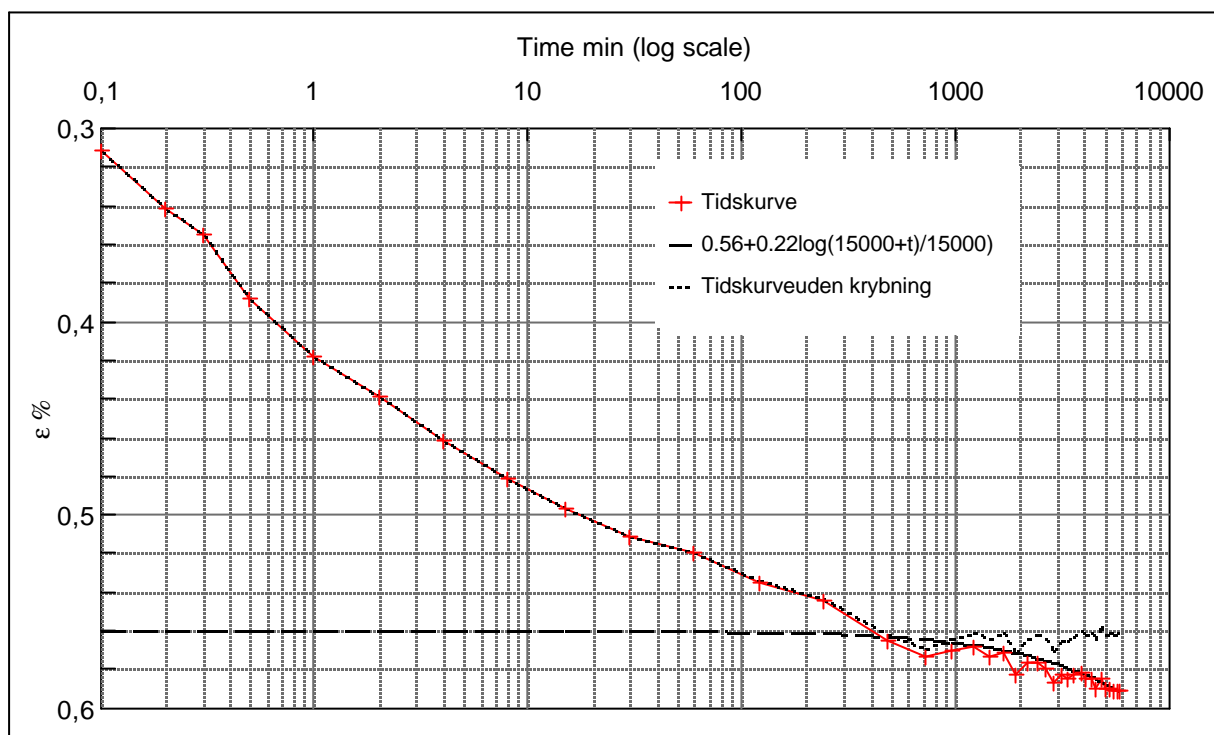
Step no 2	σ	kPa	ϵ	%	ϵ_i	tc in sec	135
	Before	11,1	ϵ_0	0,11	ϵ_c %	K i kPa	9.130
	After	19,8	$\epsilon_{-#}$	0,23	ϵ_s	k10 m/sec	7,7E-09
					ϵ_{kryb}	ck10 m^2 /sec	7,18E-06



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 2.4
Approved:		Check:

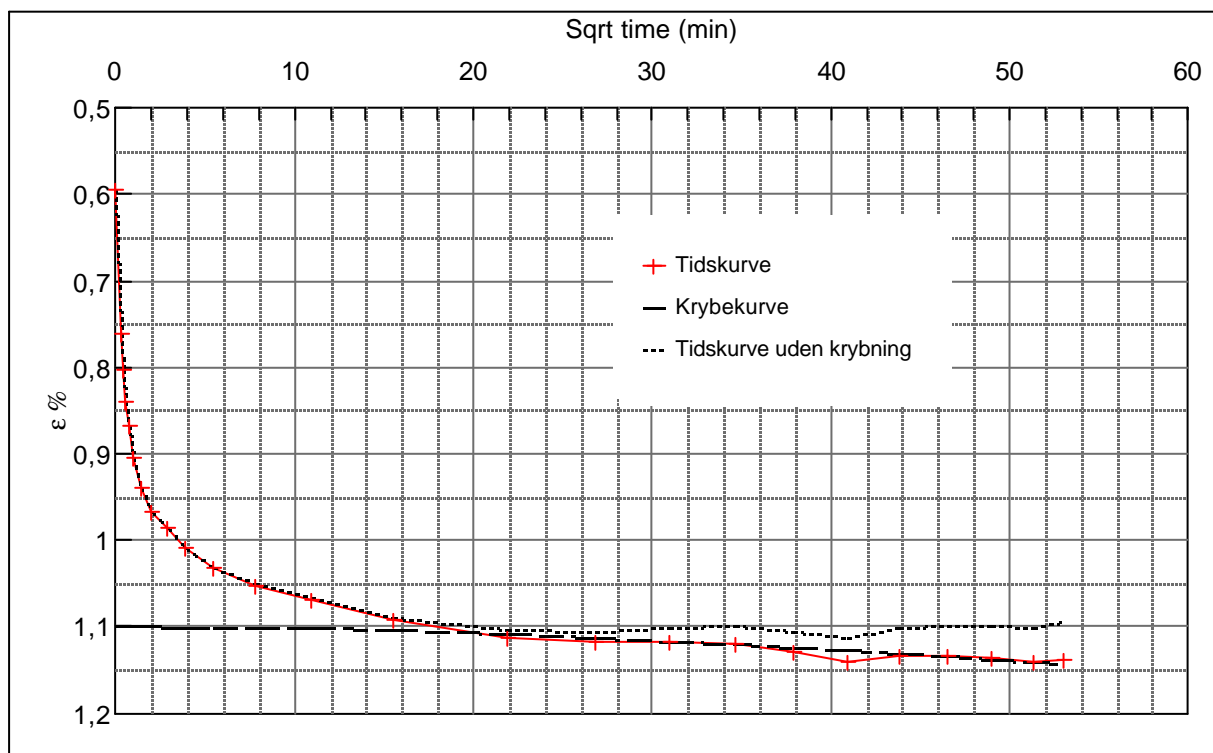
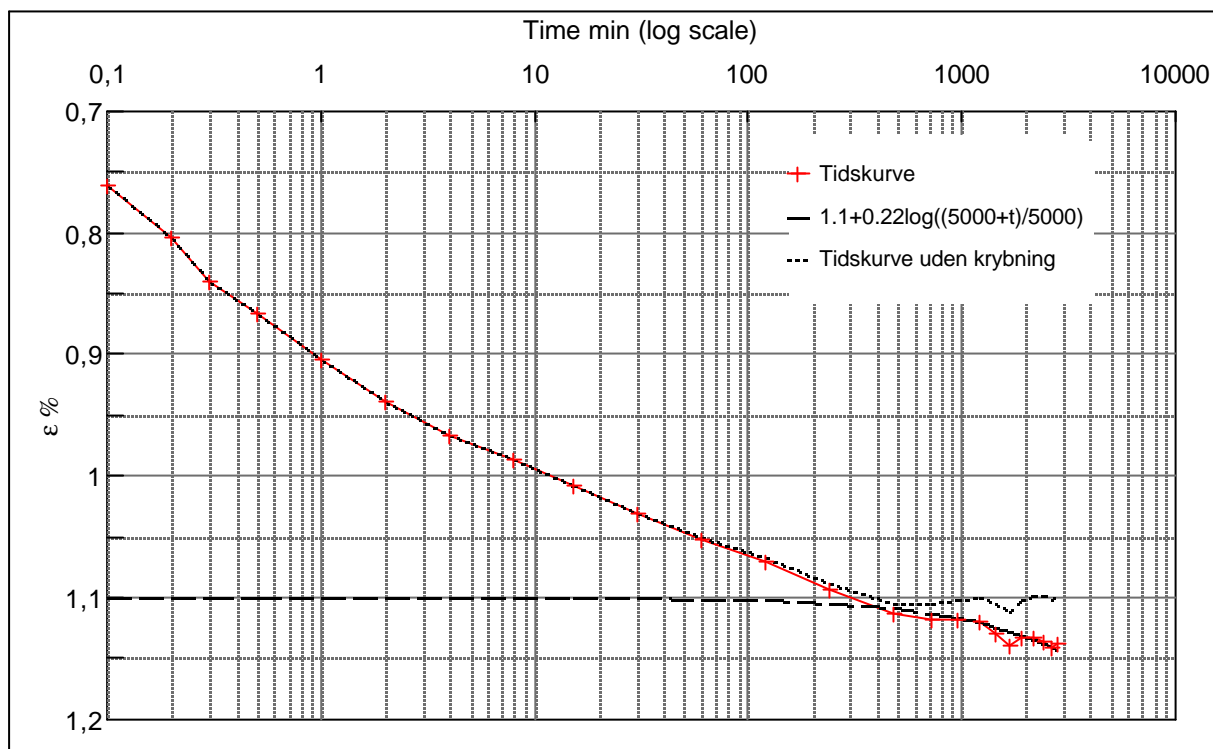
Step no 3	σ	kPa	ε	%	ε_i	tc in sec	60
	Before	19,8	ε_0	0,22	ε_c %	K i kPa	5.153
	After	37,1	$\varepsilon_{-#}$	0,59	ε_s	k10 m/sec	3,1E-08
					ε_{kryb}	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 2.5
Approved:		Check:

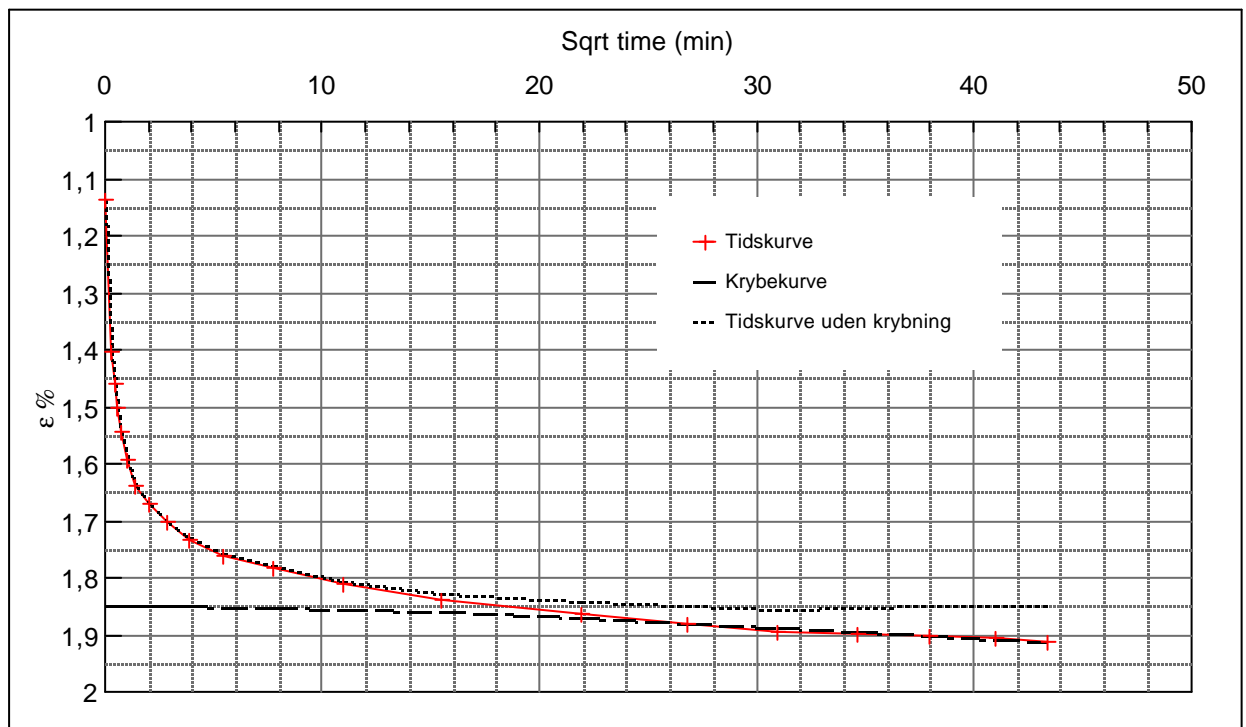
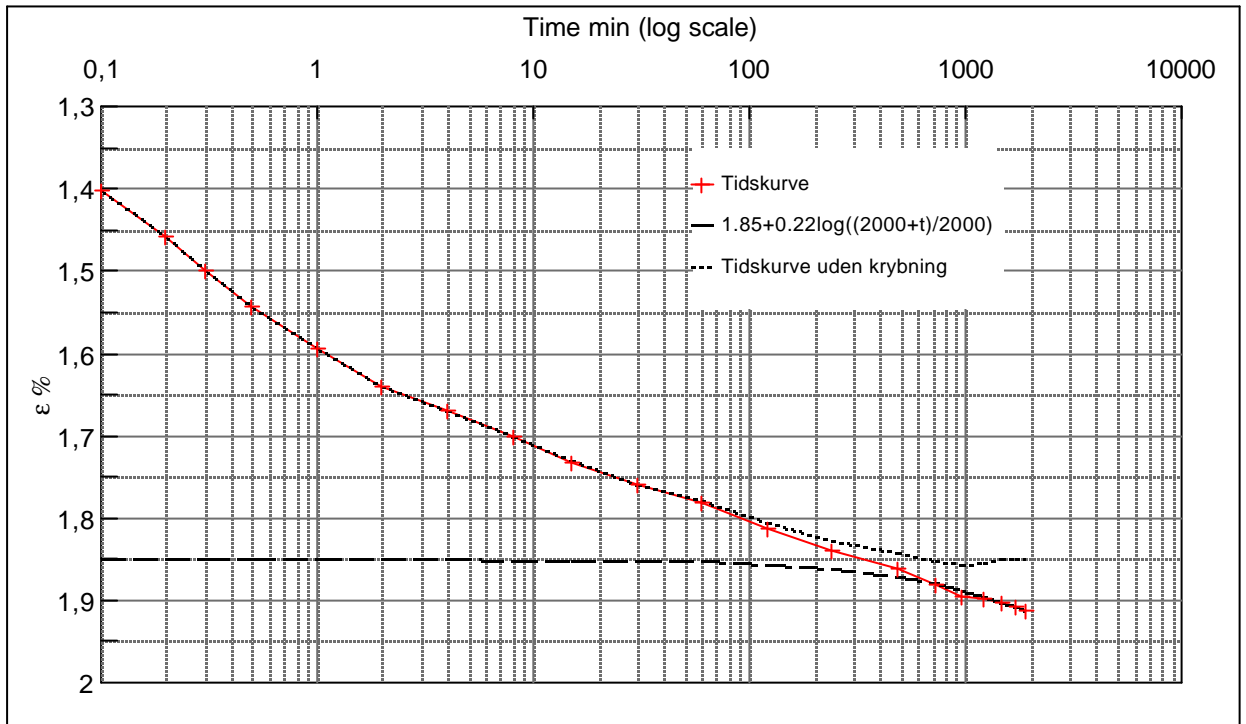
Step no 4	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	37,1	ε_0	0,59	ε_c %	1,1	K i kPa	6.848
	After	71,8	$\varepsilon_{\sim\#}$	1,14	ε_s	0,07	k10 m/sec	2,3E-08
					ε_{kryb}	0,04	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial		
Bor no :	Depth: 2.2 m.b.s	
Lab. no: 186	Insitu stress. 30 kPa	

Job: Nørre Lyngby		AAU
		Encl. No 2.6
Executed:	AMS/gt	Check:
Approved:		

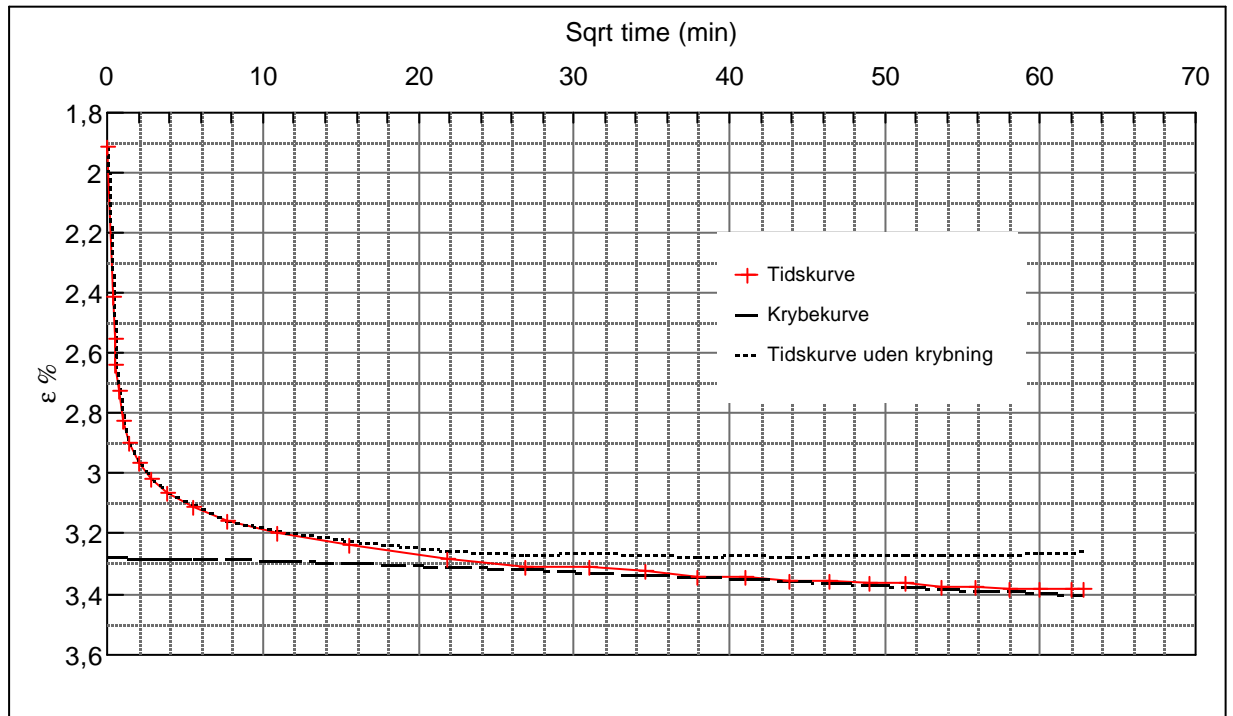
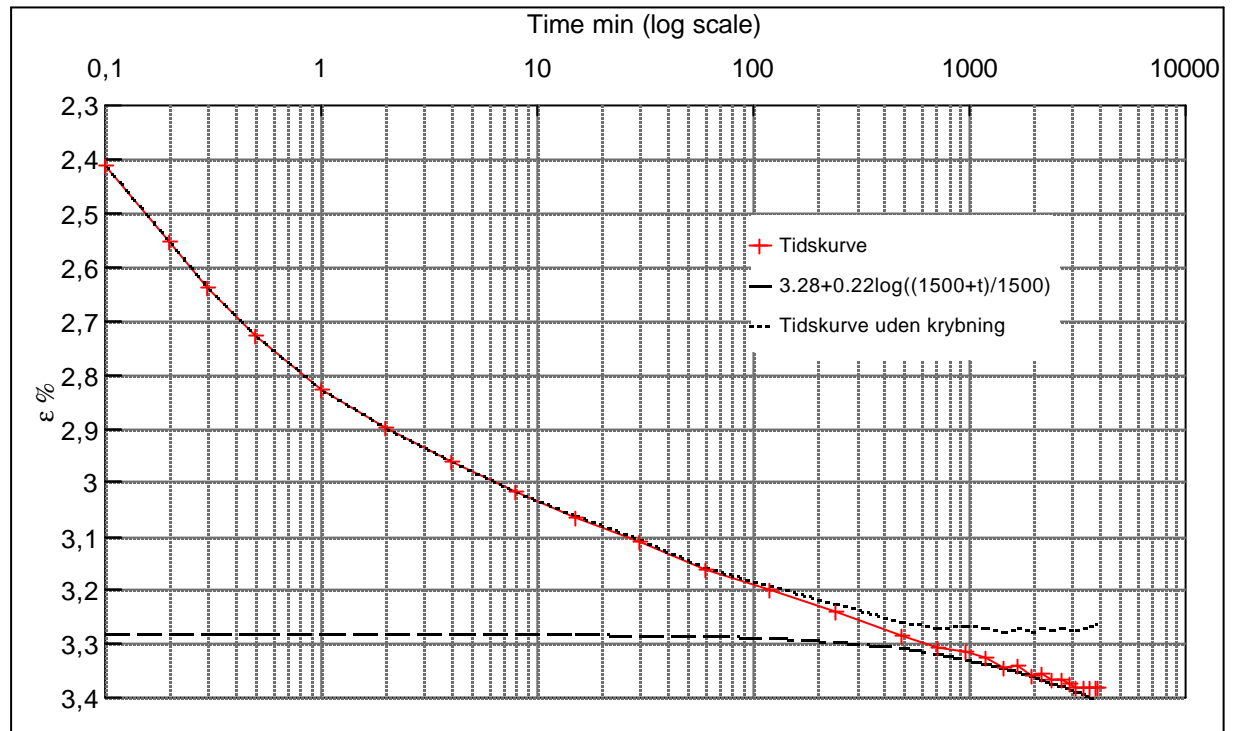
Step no 5	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	71,8	ϵ_0	1,14	ϵ_c %	1,85	K i kPa	9.728
	After	141,2	$\epsilon_{\sim\#}$	1,91	ϵ_s	0,09	k10 m/sec	1,6E-08
					ϵ_{kryb}	0,06	ck10 m^2 /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.7
Executed: AMS/gt	Check:
Approved:	

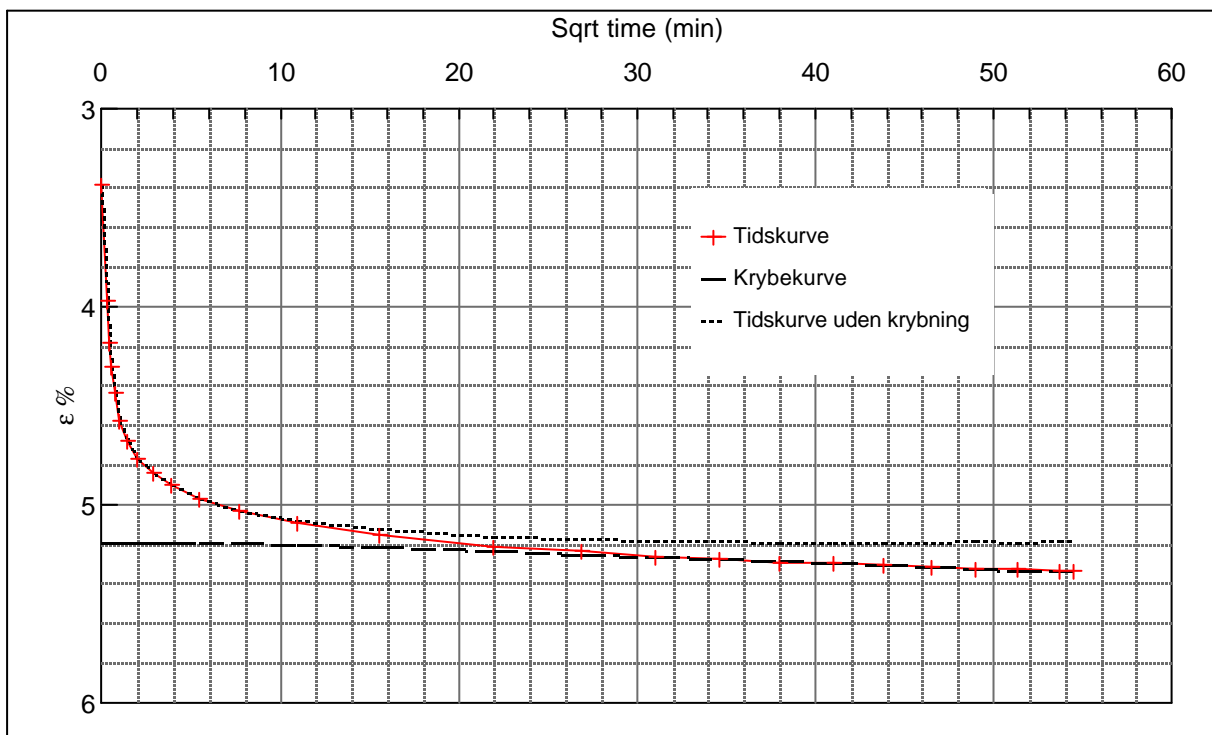
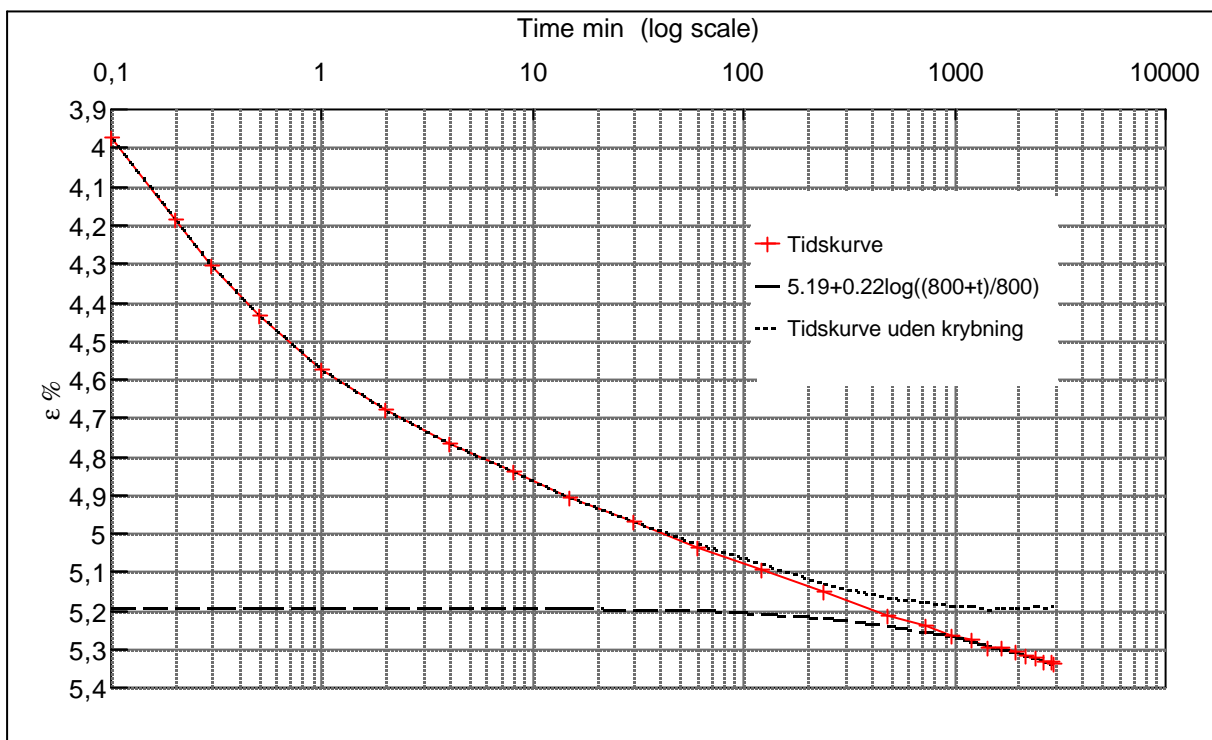
Step no 6	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	141,2	ϵ_0	1,91	ϵ_c %	3,28	K i kPa	12.694
	After	314,7	$\epsilon_{\sim\#}$	3,38	ϵ_s	0,12	k10 m/sec	1,2E-08
					ϵ_{kryb}	0,1	ck10 m ² /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.8
Executed: AMS/gt	Check:
Approved:	

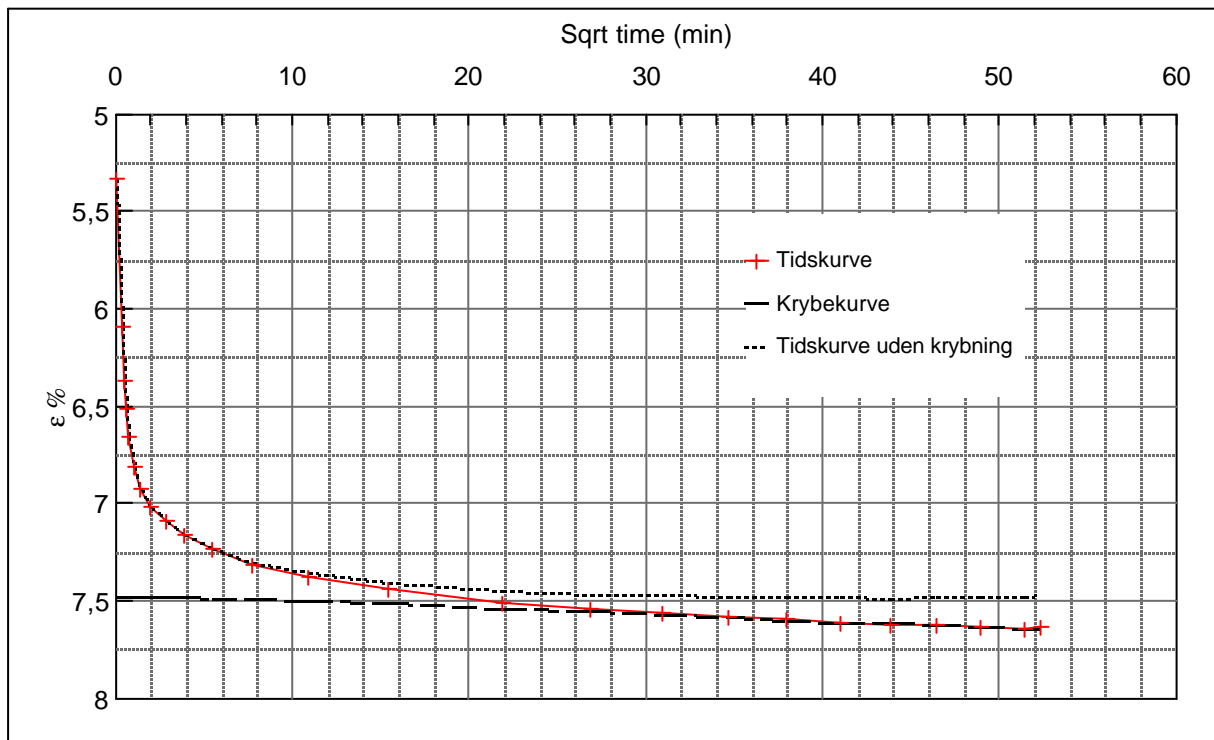
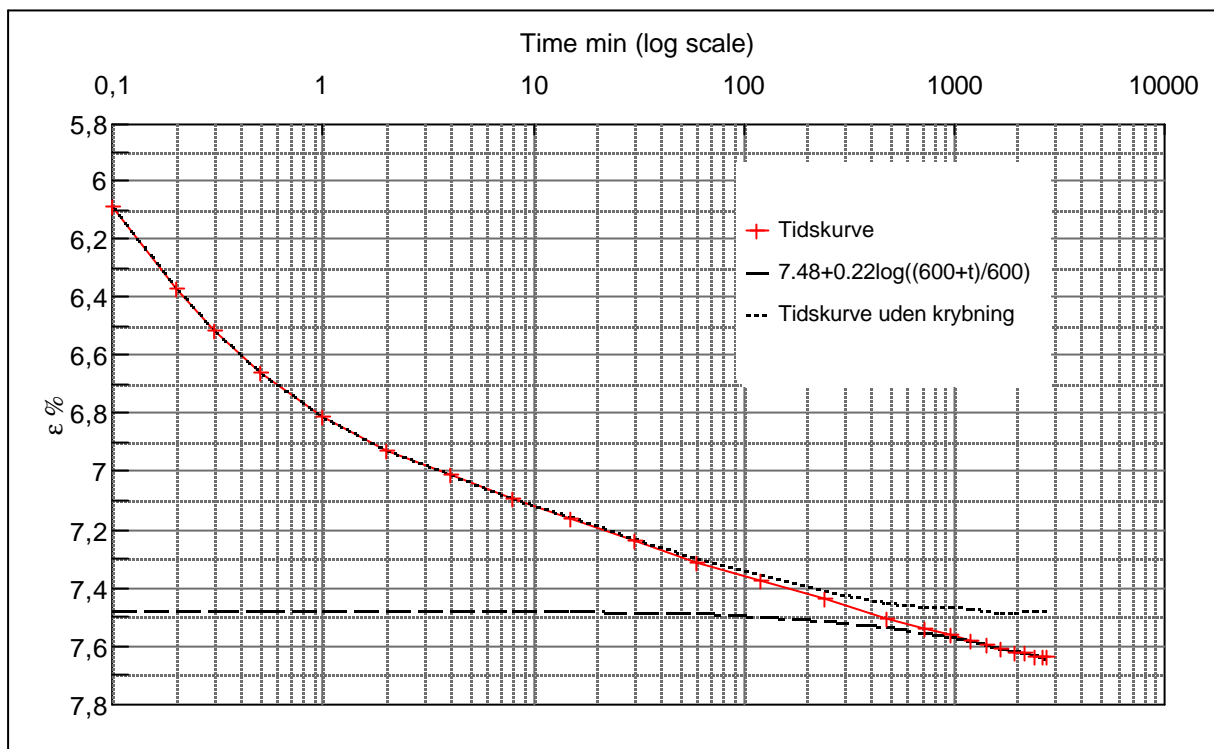
Step no 7	σ	kPa	ε	%	ε_i	tc in sec	60
	Before	314,7	ε_0	3,38	ε_c %	K i kPa	19.187
	After	661,6	$\varepsilon_{-#}$	5,33	ε_s	k10 m/sec	8,3E-09
					ε_{kryb}	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU Encl. No 2.9
Executed: AMS/gt	Check:
Approved:	

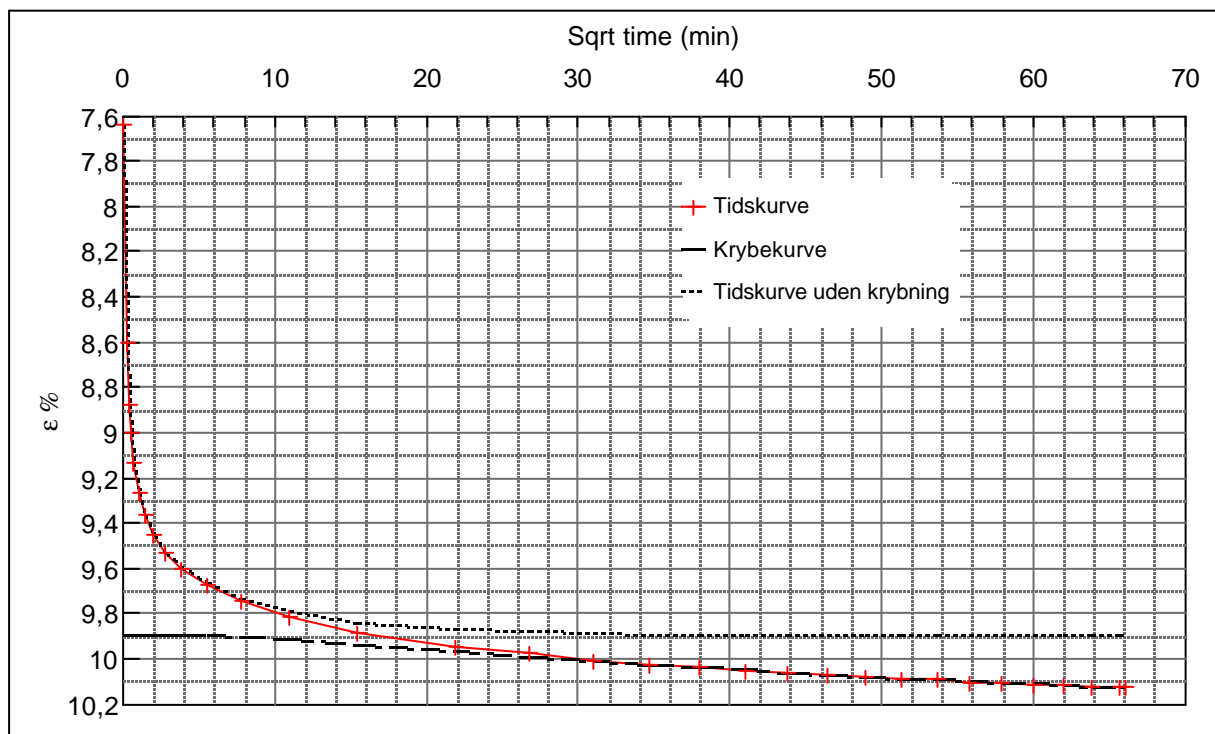
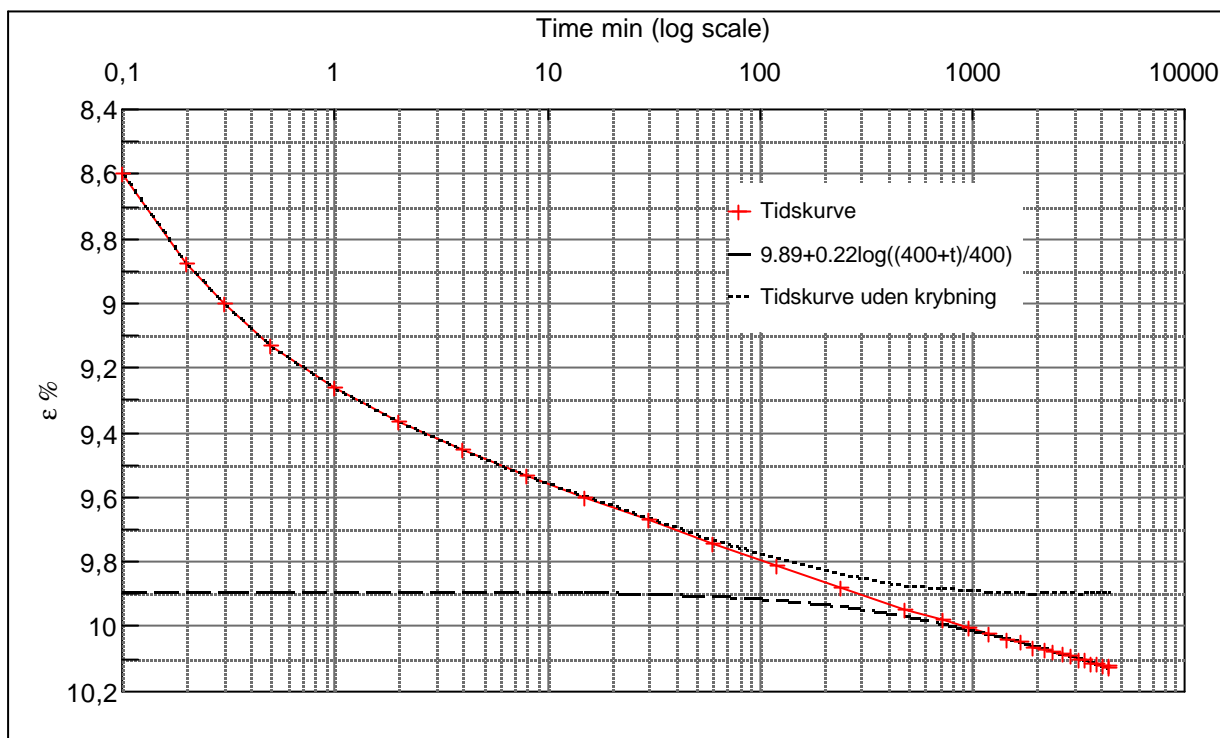
Step no 8	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	661,6	ϵ_0	5,33	ϵ_c %	7,48	K i kPa	32.300
	After	1.355,6	$\epsilon_{\sim\#}$	7,64	ϵ_s	0,2	k10 m/sec	4,9E-09
					ϵ_{kryb}	0,16	ck10 m^2 /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 2.10
Approved:		Check:

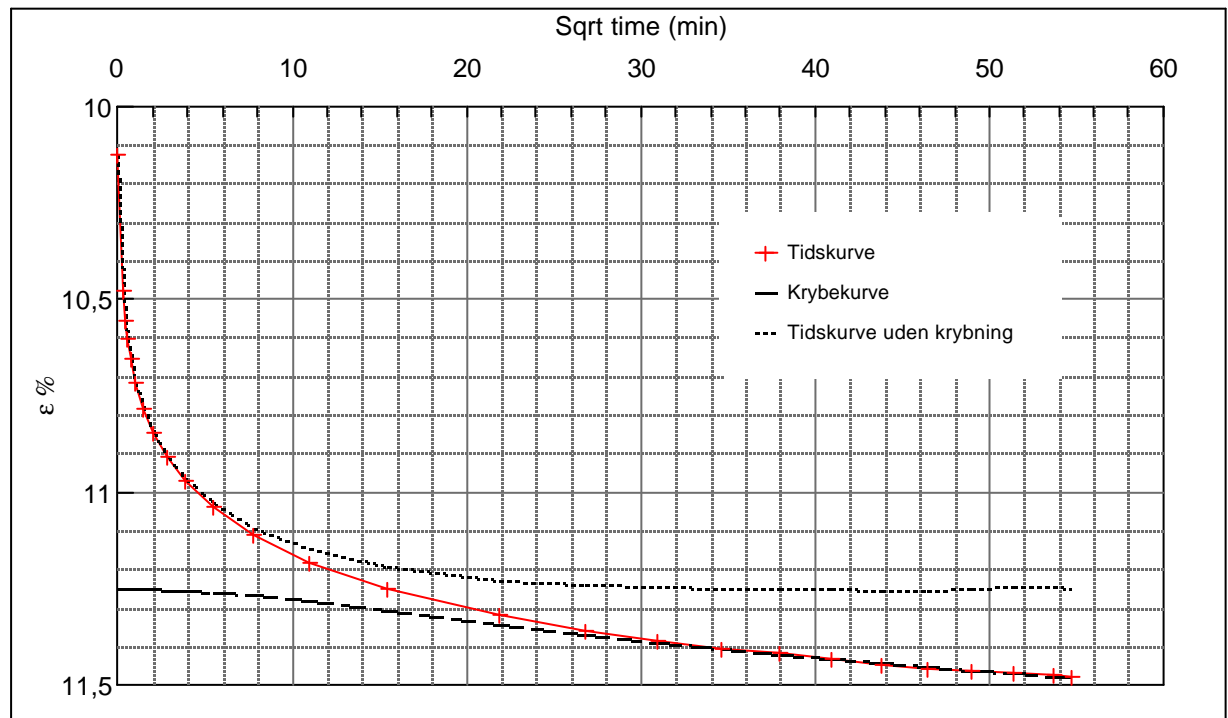
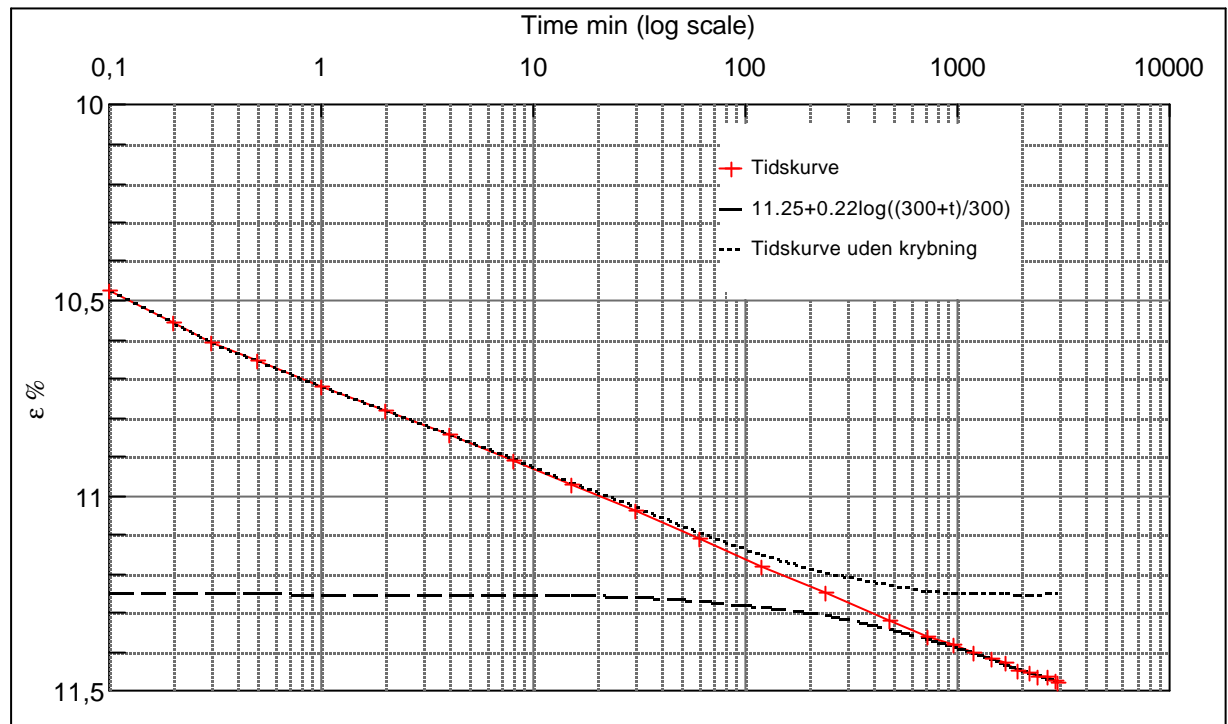
Step no 9	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	1.355,6	ε_0	7,64	ε_c %	9,89	K i kPa	61.636
	After	2.743,4	$\varepsilon_{-#}$	10,12	ε_s	0,2	k10 m/sec	2,6E-09
					ε_{kryb}	0,23	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.11
Executed: AMS/gt	Check:
Approved:	

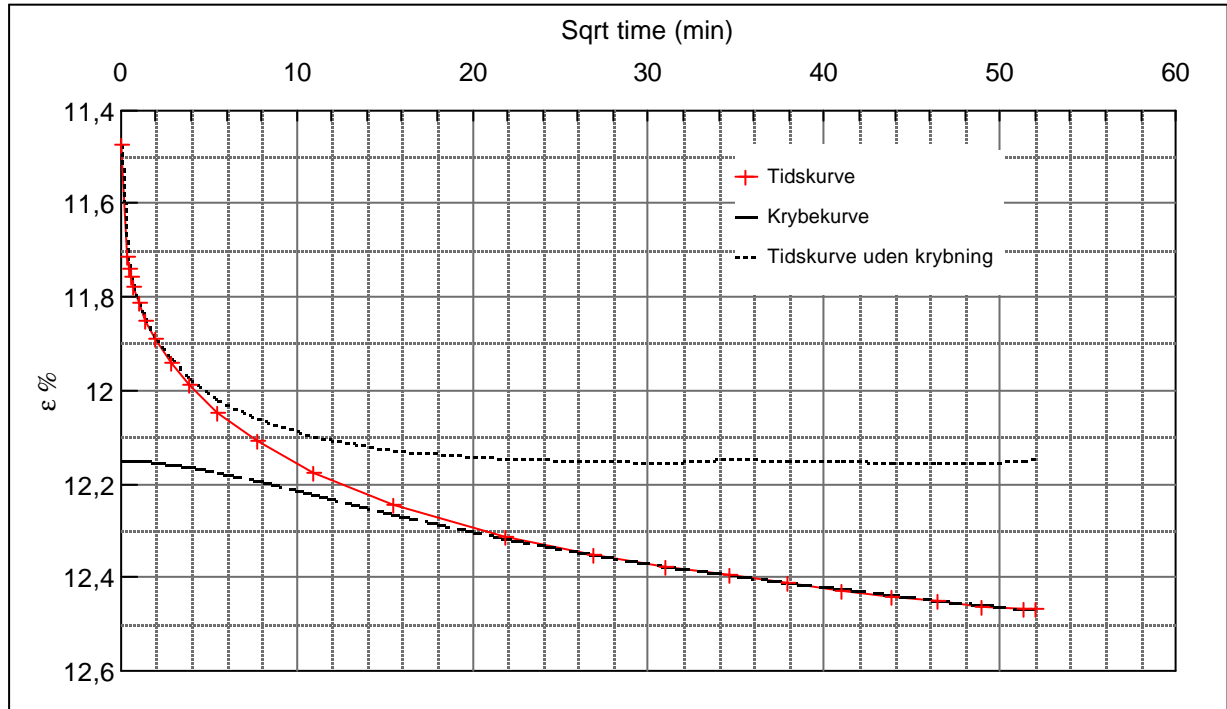
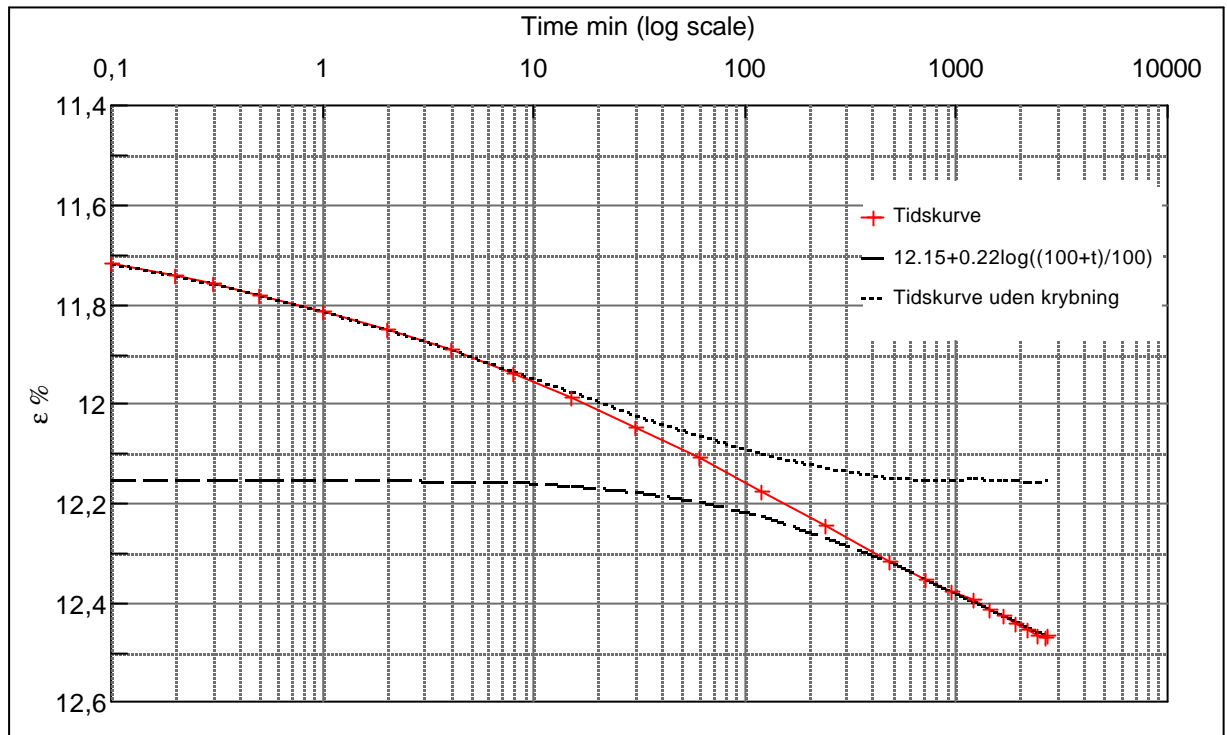
Step no 10	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	2.743,4	ϵ_0	10,13	ϵ_c %	11,25	K i kPa	123.363
	After	4.131,2	$\epsilon_{\sim\#}$	11,48	ϵ_s	0,22	k10 m/sec	1,3E-09
					ϵ_{kryb}	0,23	ck10 m^2 /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.12
Executed: AMS/gt	Check:
Approved:	

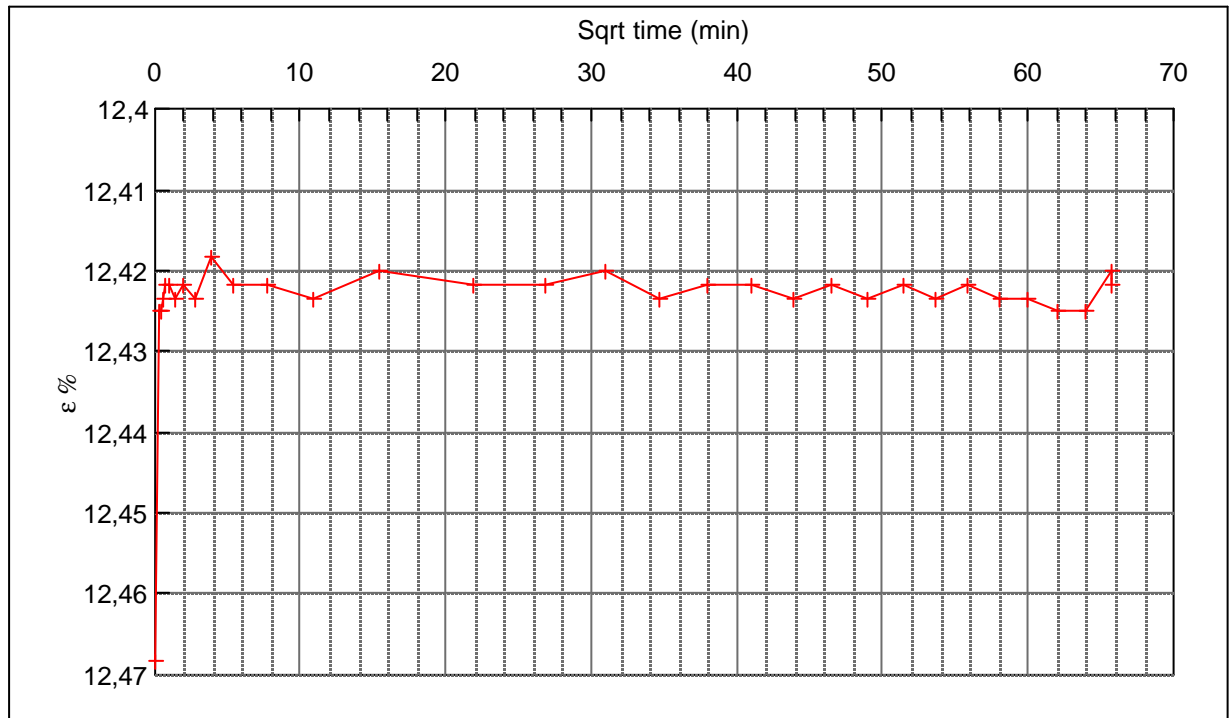
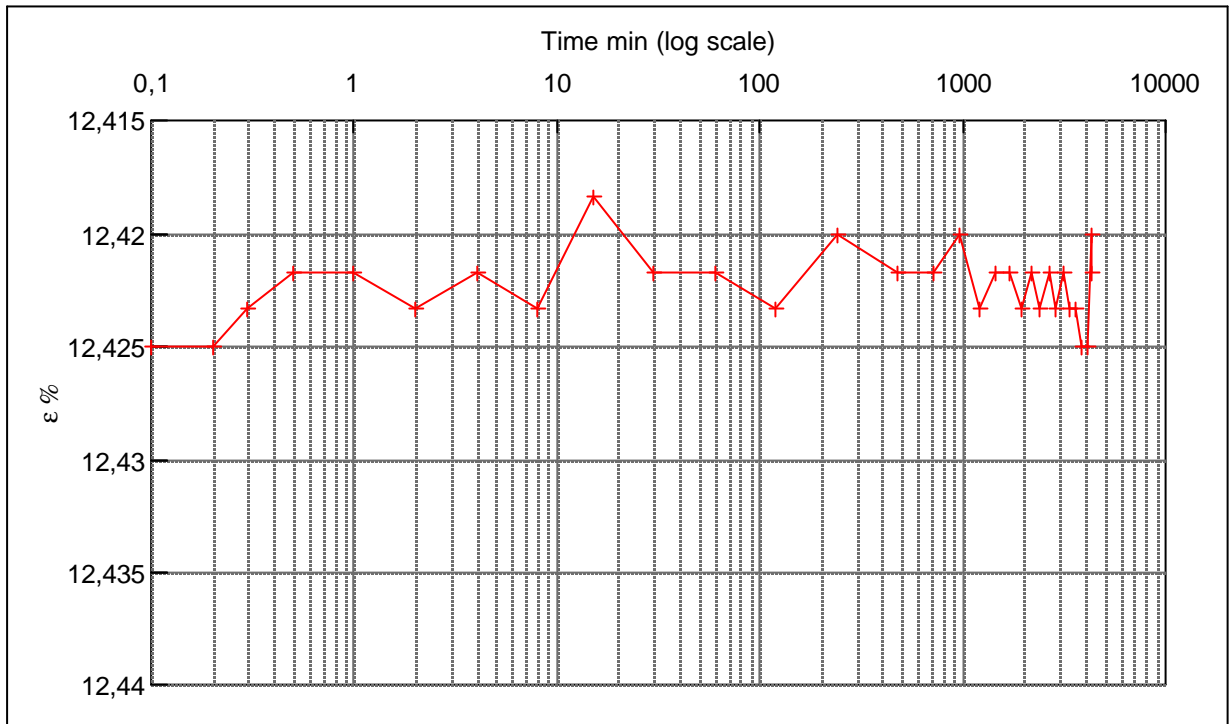
Step no 11	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	4.131,2	ϵ_0	11,48	ϵ_c %	12,15	K i kPa	206.114
	After	5.519,1	$\epsilon_{\sim\#}$	12,47	ϵ_s	0,22	k10 m/sec	7,7E-10
					ϵ_{kryb}	0,32	ck10 m^2 /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.13
Executed: AMS/gt	Check:
Approved:	

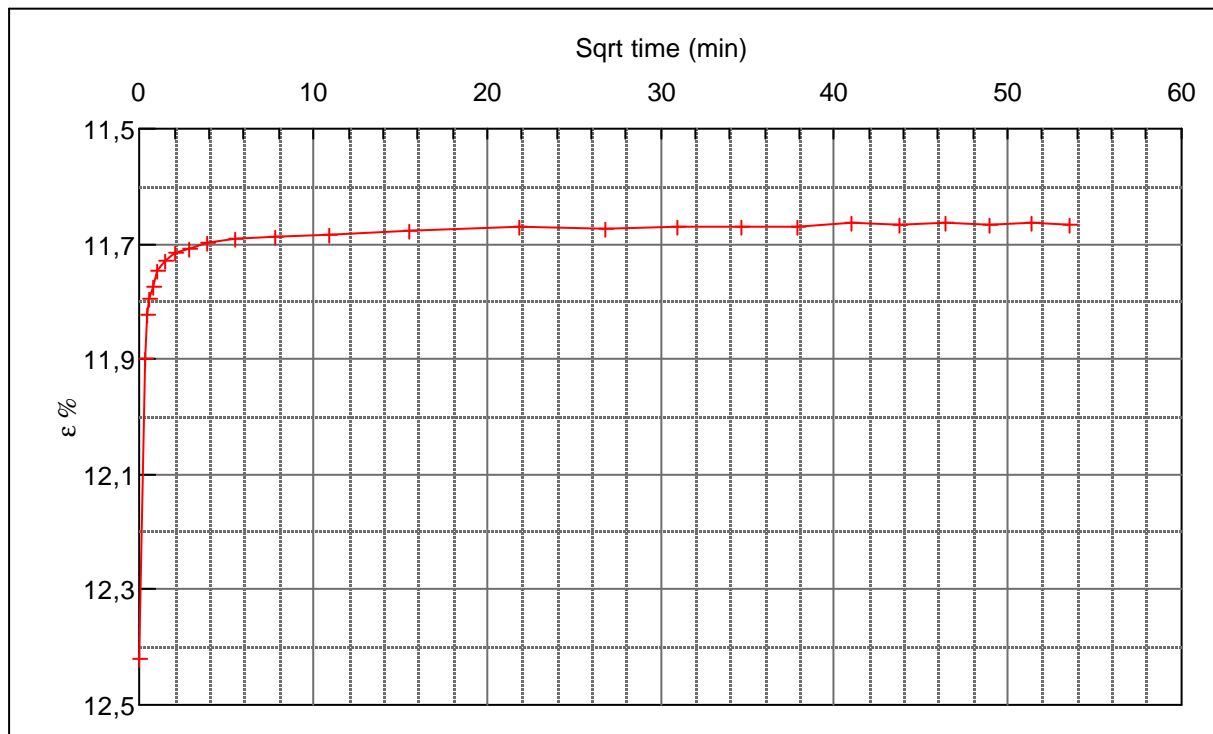
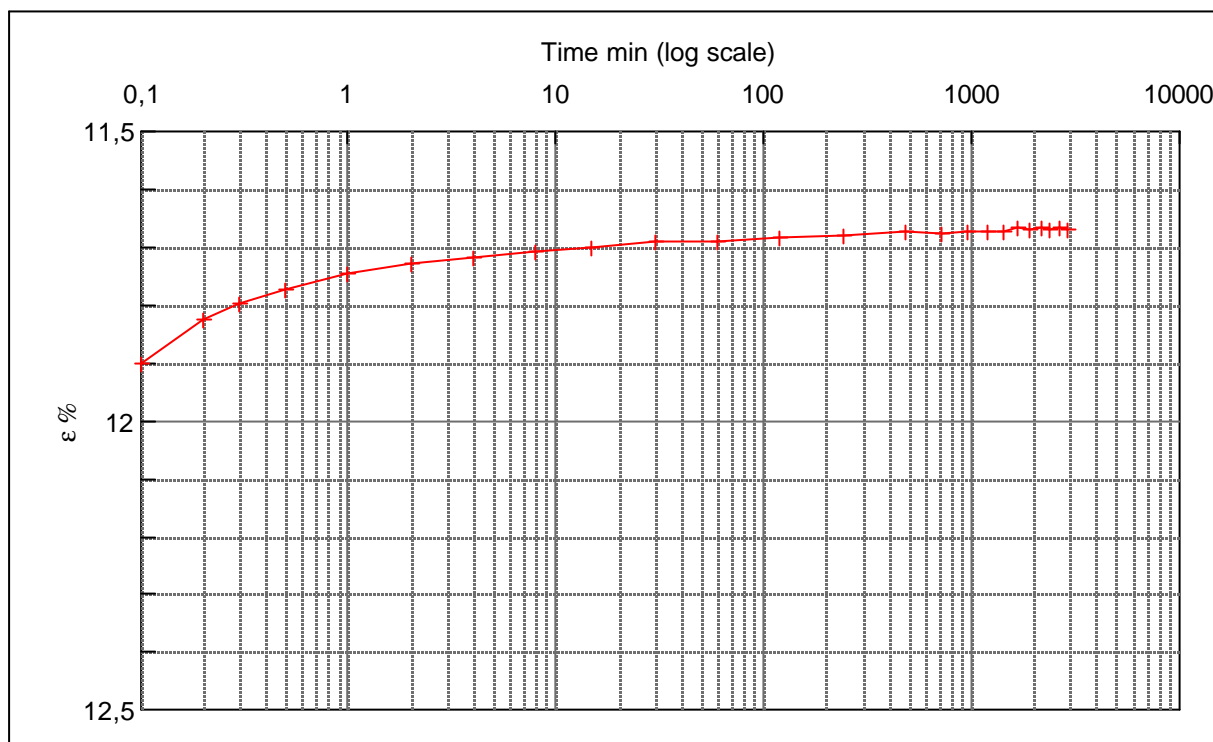
Step no 12	σ	kPa	ϵ	%	ϵ_i		tc in sec	15
	Before	5.519,1	ϵ_0	12,47	ϵ_c %	12,42	K i kPa	2.995.319
	After	4.131,2	$\epsilon_{\sim\#}$	12,42	ϵ_s		k10 m/sec	2,1E-10
					ϵ_{kyb}		ck10 m ² /sec	6,47E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.14
Executed: AMS/gt	Check:
Approved:	

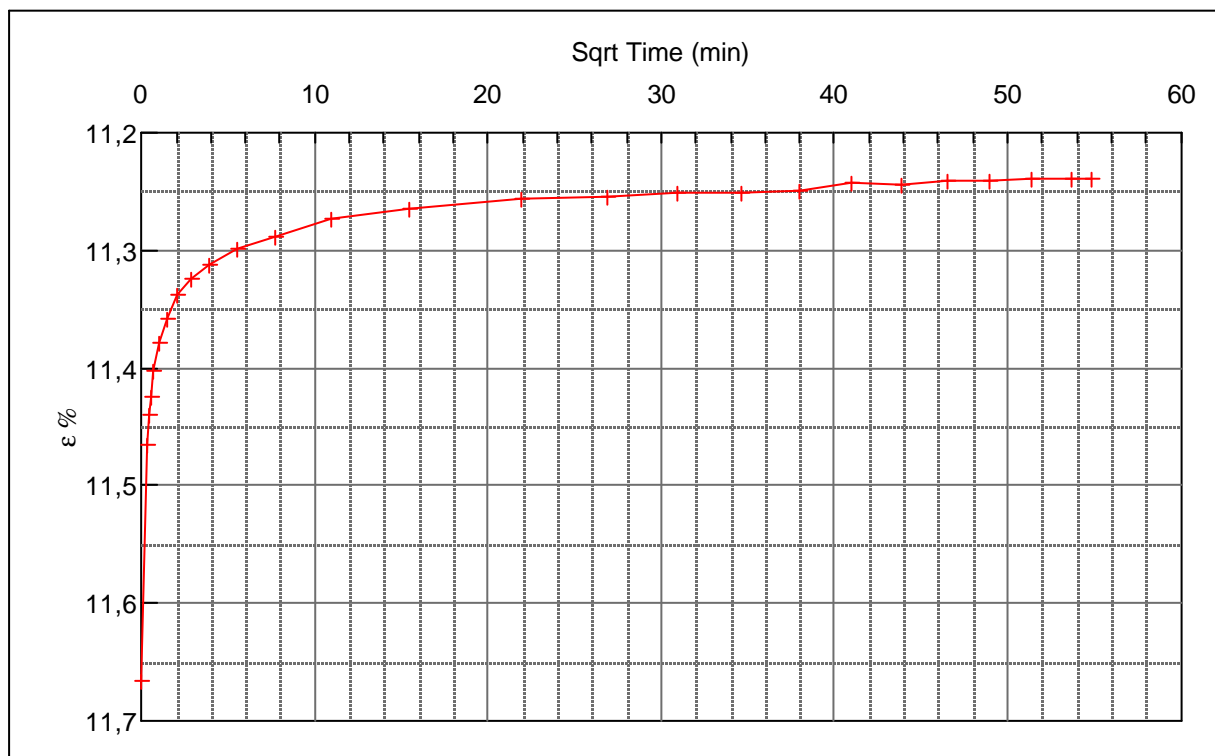
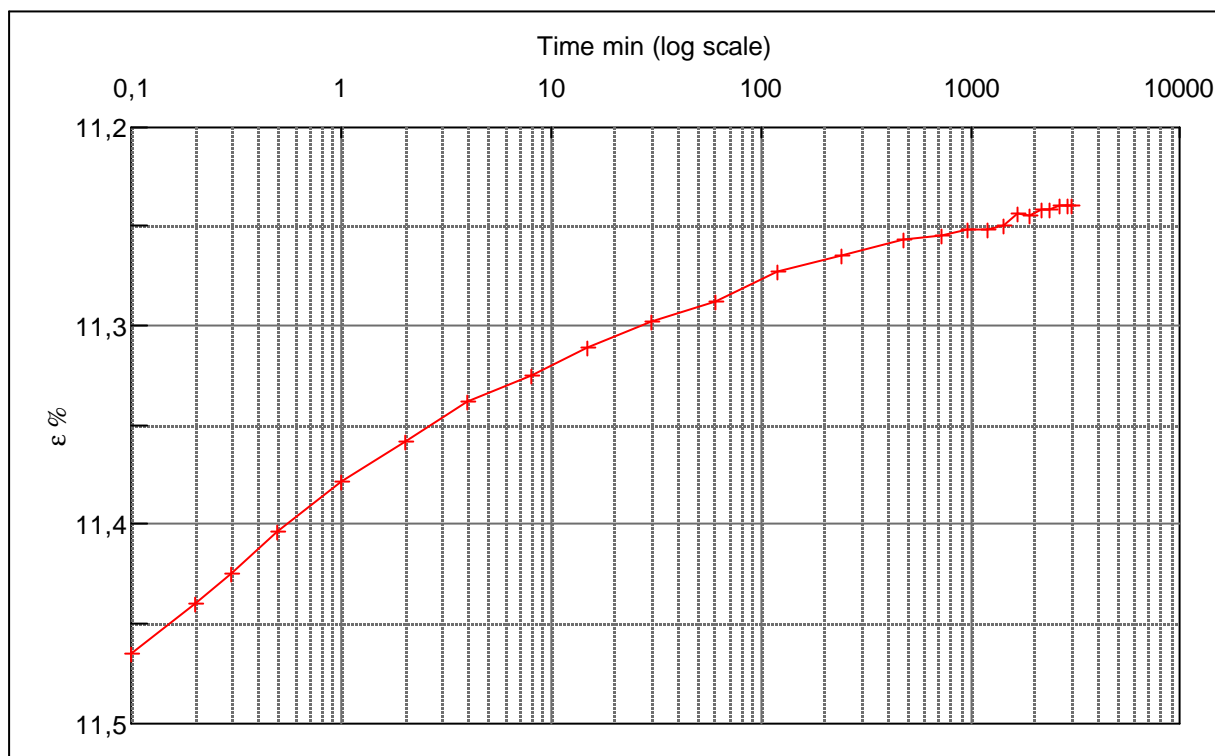
Step no 13	σ	kPa	ϵ	%	ϵ_i	tc in sec	38,4
	Before	4.131,2	ϵ_0	12,42	ϵ_c %	K i kPa	460.360
	After	661,6	$\epsilon_{-#}$	11,67	ϵ_s	k10 m/sec	5,4E-10
					ϵ_{kryb}	ck10 m ² /sec	2,53E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.15
Executed: AMS/gt	Check:
Approved:	

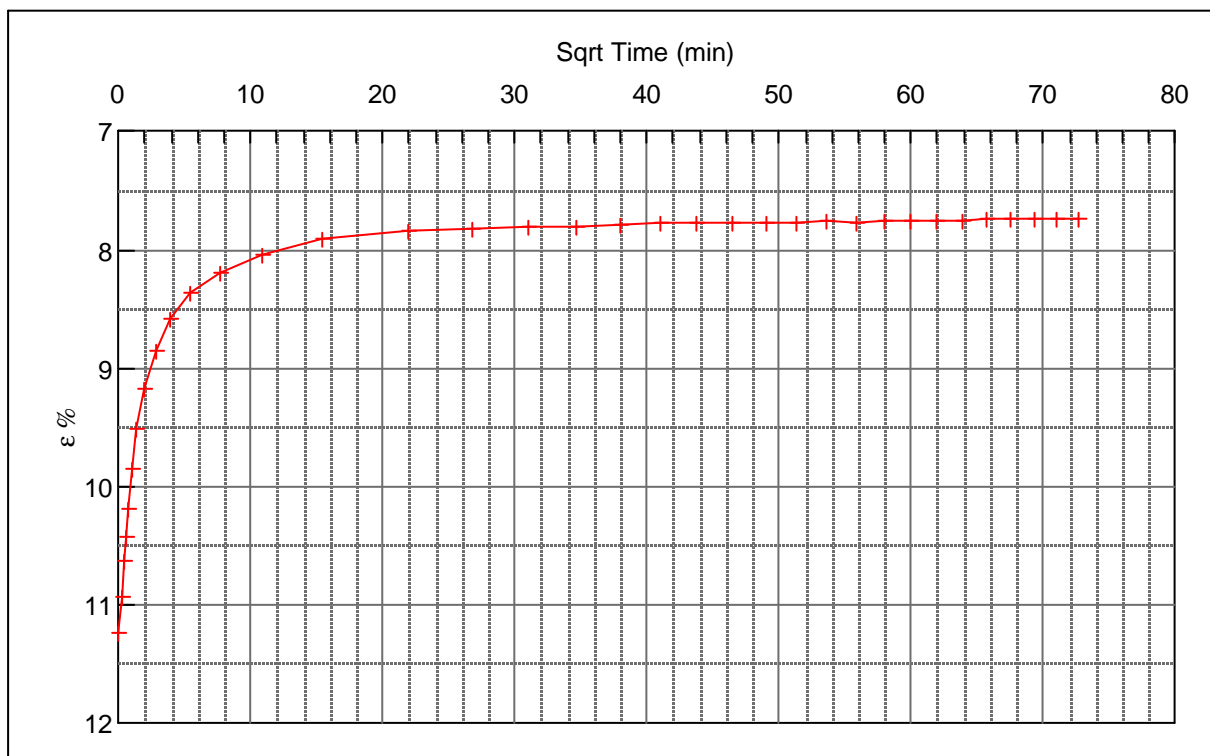
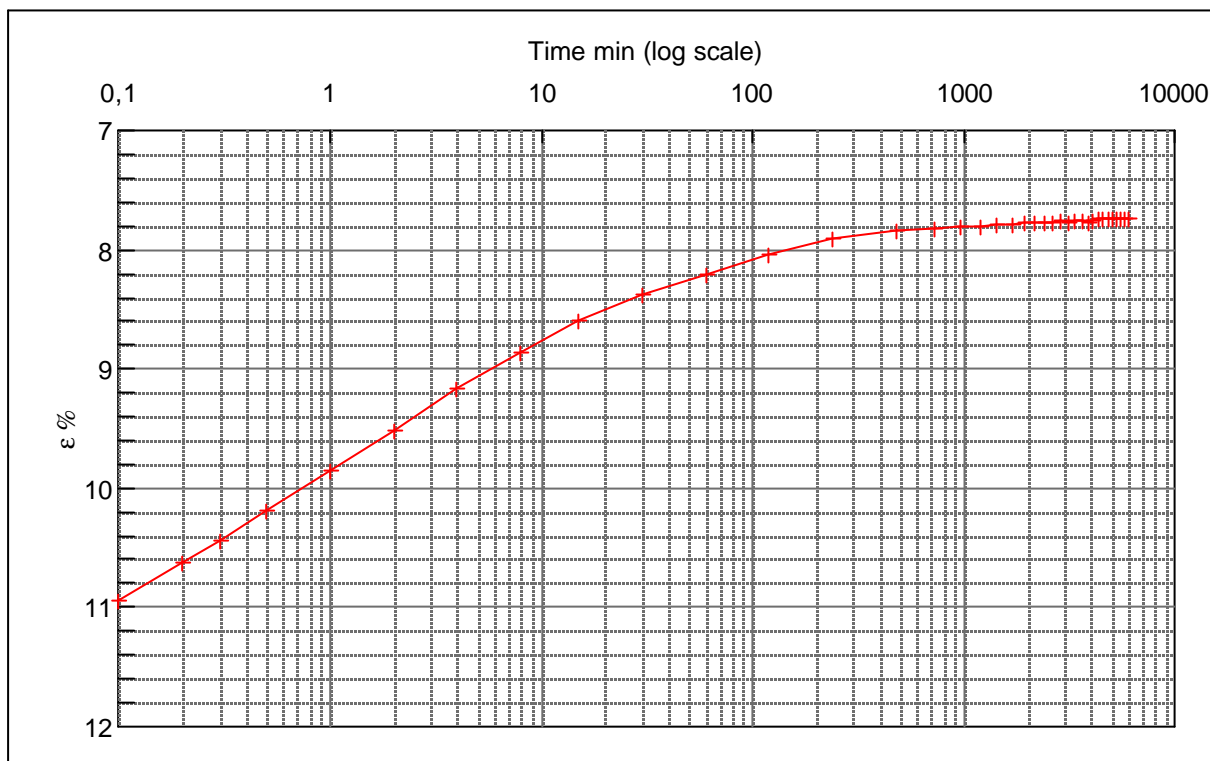
Step no 14	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	661,6	ϵ_0	11,67	ϵ_c %	11,24	K i kPa	81.318
	After	314,7	$\epsilon_{\sim\#}$	11,24	ϵ_s		k10 m/sec	2,0E-09
					ϵ_{kryb}		ck10 m ² /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.16
Executed: AMS/gt	Check:
Approved:	

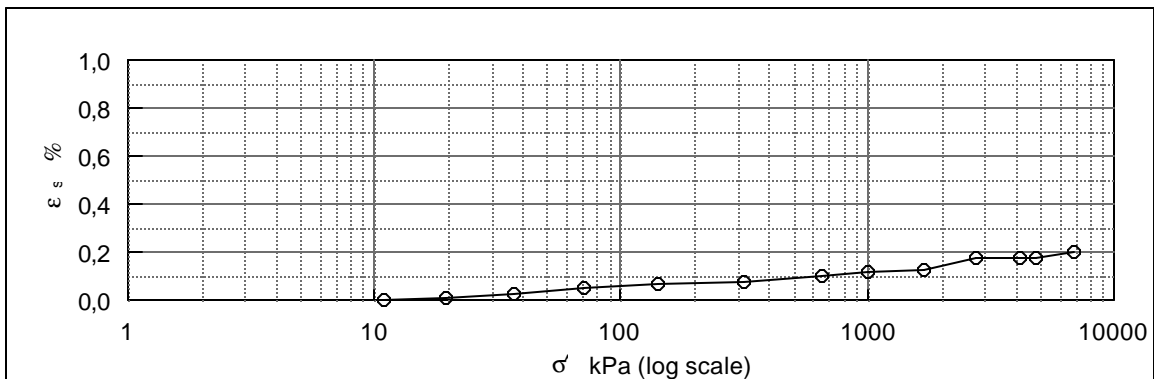
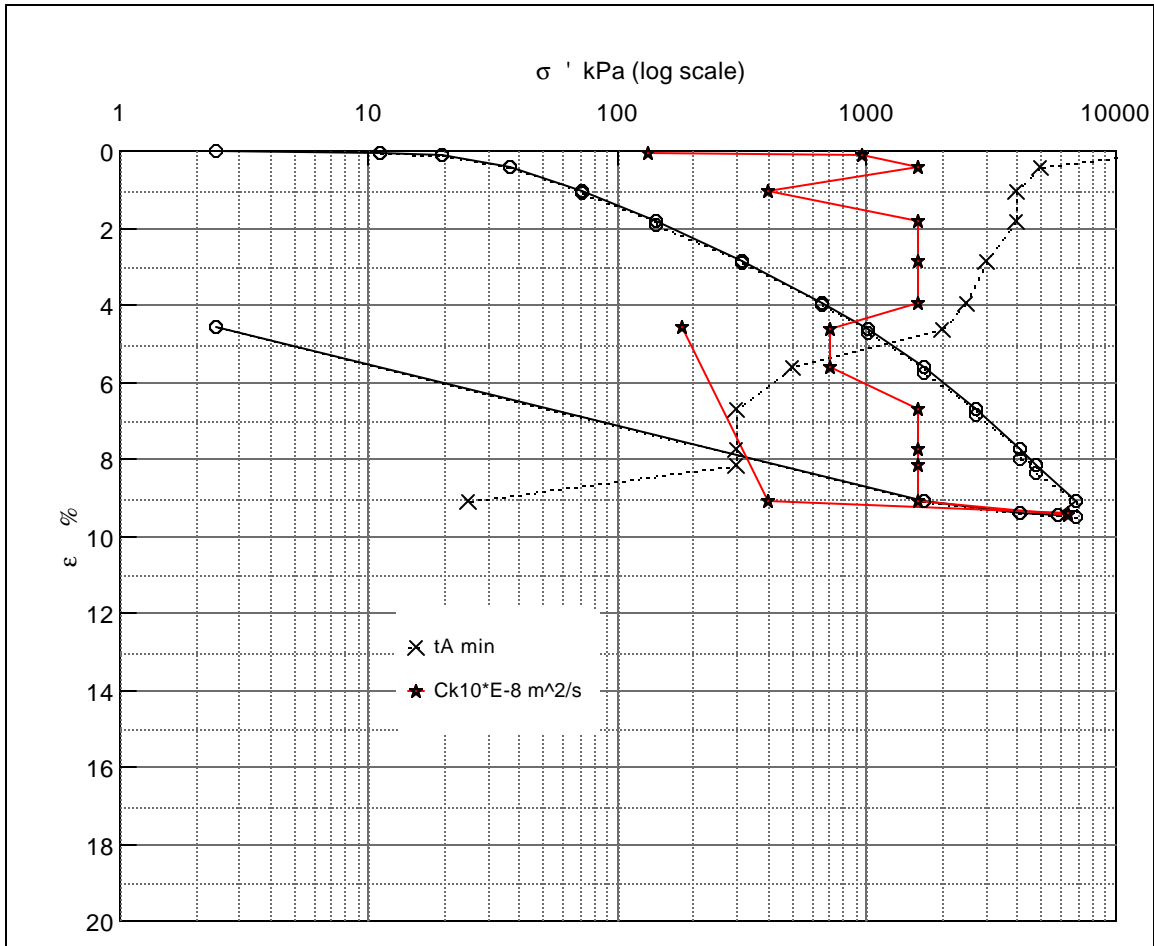
Step no 15	σ	kPa	ε	%	ε_i	tc in sec	240
	Before	314,7	ε_0	11,24	ε_c %	K i kPa	8.893
	After	2,4	$\varepsilon_{-#}$	7,73	ε_s	k10 m/sec	4,5E-09
					ε_{kyb}	ck10 m^2 /sec	4,04E-06



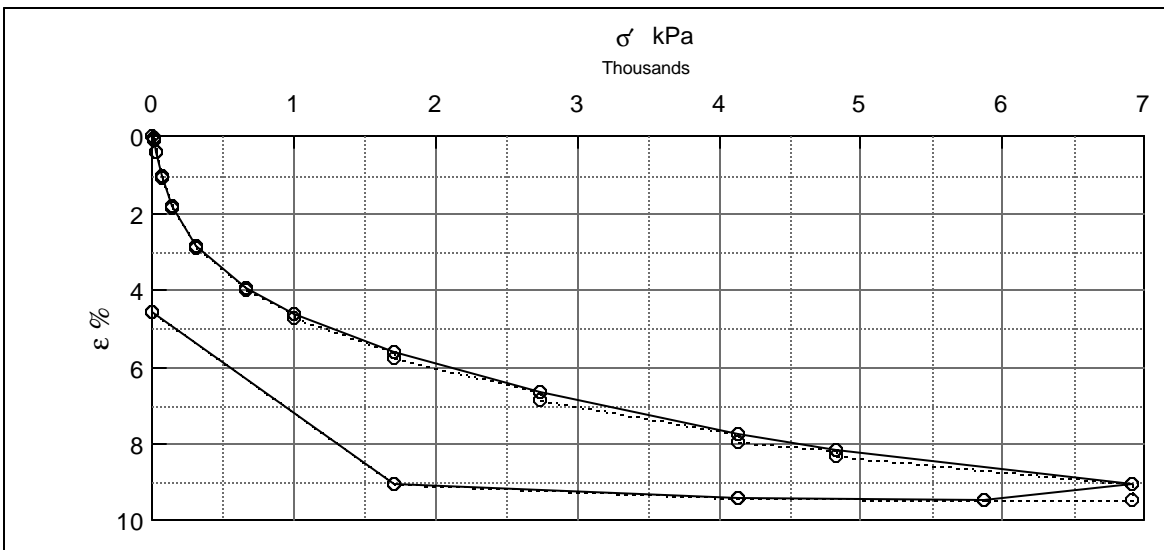
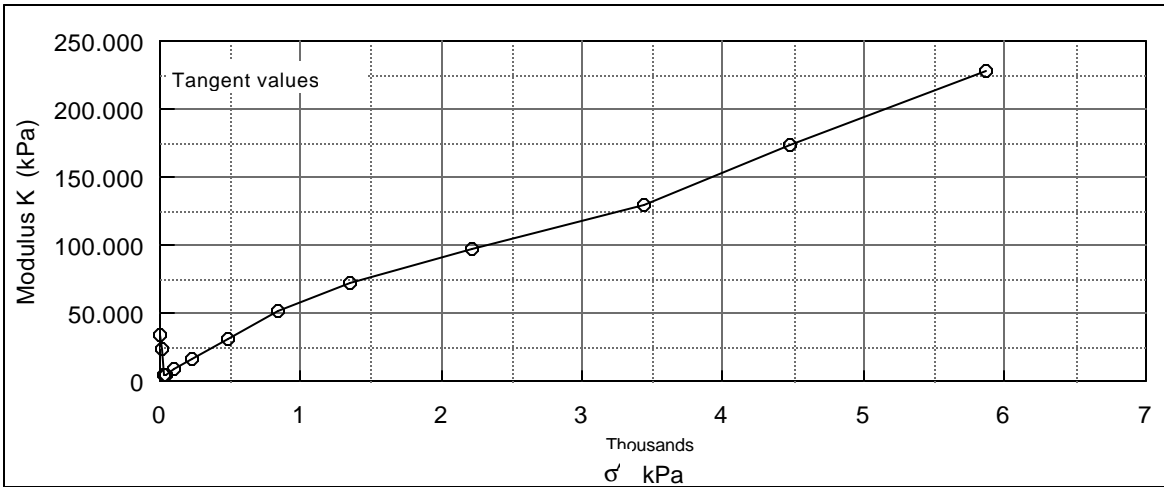
Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 186	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nørre Lyngby	AAU
	Encl. No 2.17
Executed: AMS/gt	Check:
Approved:	

Description of soil: Clay, marine, Lateglacial				Water content %	Before	After
				Bulk density Mg/m ³	19,7	20,3
				Grain density Mg/m ³	2,01	2,10
Bor no :	Overburden pressure σ_o	~30 kPa		Void ratio	0,61	0,55
Lab. no: 358	Vane strength c_v	355 kPa		Degr. of Saturation %	87	100
Level : 2.2 m.b.s	CPT - value q_c	MPa		Dimension H x D mm	30x60	28.9x60



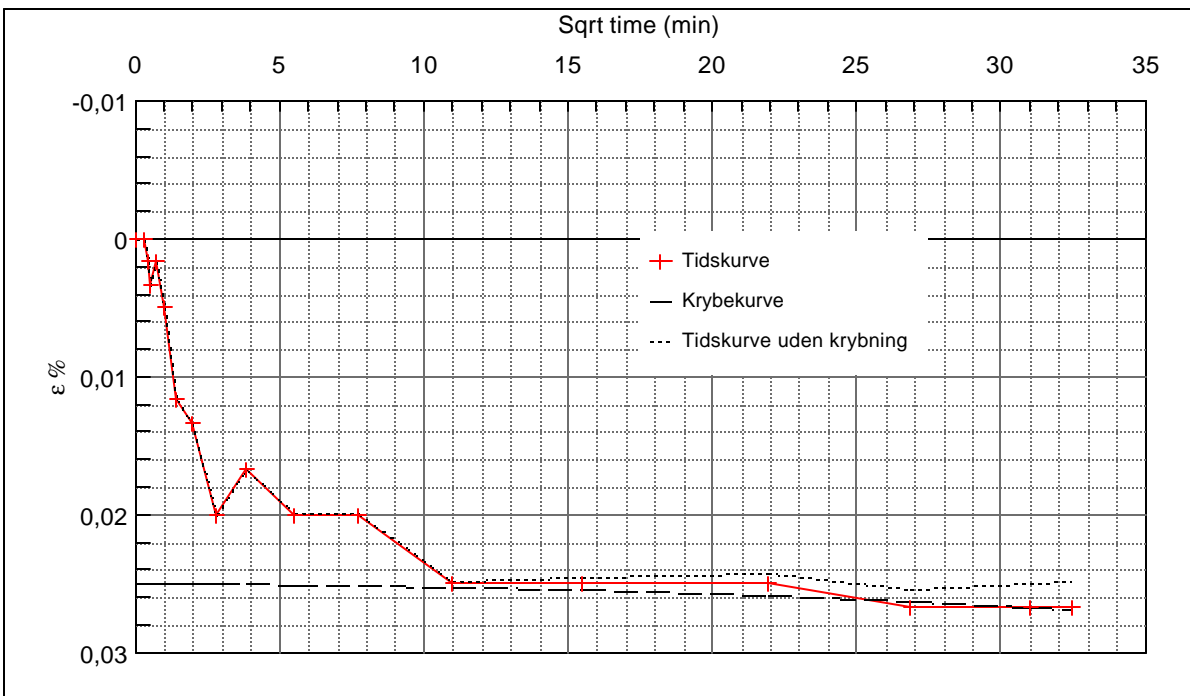
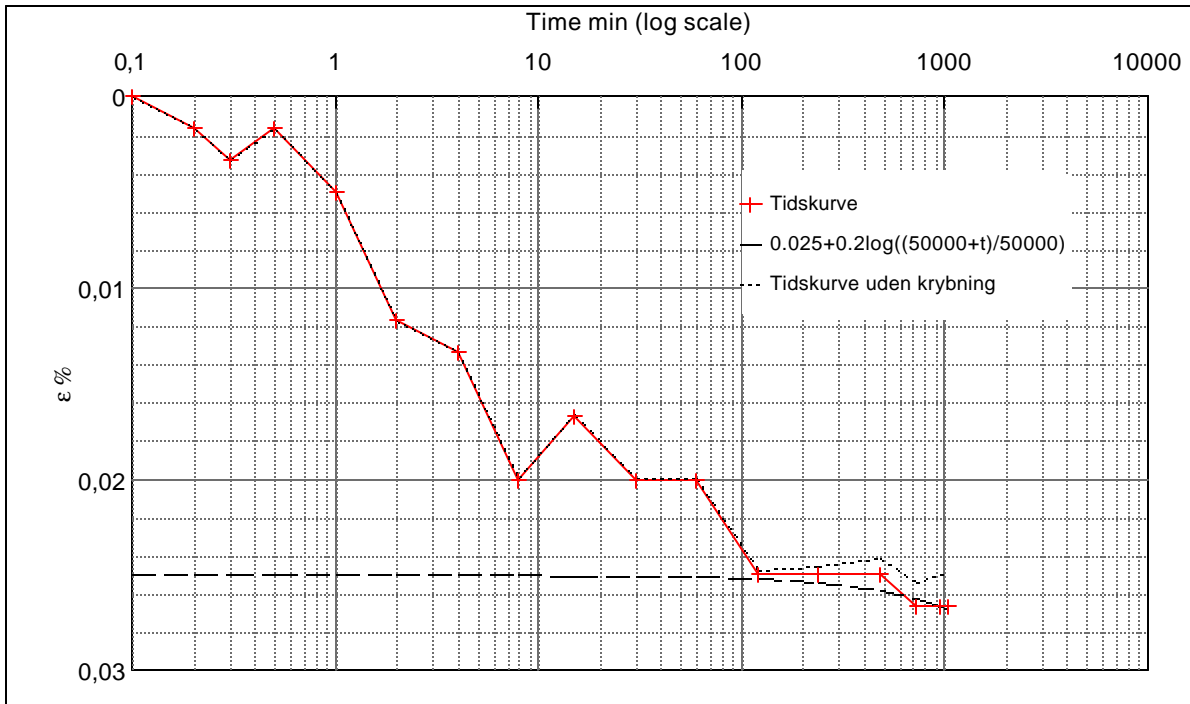
Job: Nr. Lyngby		AAU
		Encl. No 3.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ	ε_c	ε_s	C k10	σ_m	K	w
		kPa	%	% / lct	m ² /s	kPa	kPa	%
Q	6 %	2,4	0,00					23,0
Qs	0,2 %	11,1	0,03	0,00	1,3E-06	6,8	34695,8	23,0
σ_{pc}	?	19,8	0,06	0,01	9,6E-06	15,4	23764,2	23,0
		37,1	0,38	0,03	1,6E-05	28,5	5446,7	22,8
		71,8	1,04	0,06	4,0E-06	54,5	5256,9	22,4
		141,2	1,82	0,07	1,6E-05	106,5	8896,4	21,9
		314,7	2,83	0,08	1,6E-05	228,0	17176,1	21,3
		661,6	3,94	0,10	1,6E-05	488,2	31257,5	20,7
		1.008,6	4,62	0,12	7,2E-06	835,1	51023,2	20,3
		1.702,5	5,59	0,13	7,2E-06	1.355,6	71537,7	19,7
		2.743,4	6,67	0,18	1,6E-05	2.223,0	96825,4	19,1
		4.131,2	7,74	0,18	1,6E-05	3.437,3	129703,8	18,4
		4.825,1	8,14	0,18	1,6E-05	4.478,2	173478,9	18,2
		6.906,9	9,05	0,20	1,6E-05	5.866,0	227513,3	17,6
		5.866,0	9,46		6,5E-05	6.386,5	-254928,6	17,4
		4.131,2	9,41		6,5E-05	4.998,6	3381654,7	17,4
		1.702,5	9,06		4,0E-06	2.916,9	706018,7	17,6
		2,4	4,57		1,80E-06	852,5	37813,5	20,3

Remark:		Job:		AAU
		Nr. Lyngby		Encl. No 3.2
		Executed: AMS/gt		Check:
		Approved:		

Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	735
	Before	2,4	ϵ_0	0,000	ϵ_c %	0,025	K i kPa	34.696
	After	11,1	$\epsilon_{\sim\#}$	0,027	ϵ_s	0,002	k10 m/sec	3,7E-10
					ϵ_{kryb}	0,002	ck10 m^2/sec	1,32E-06

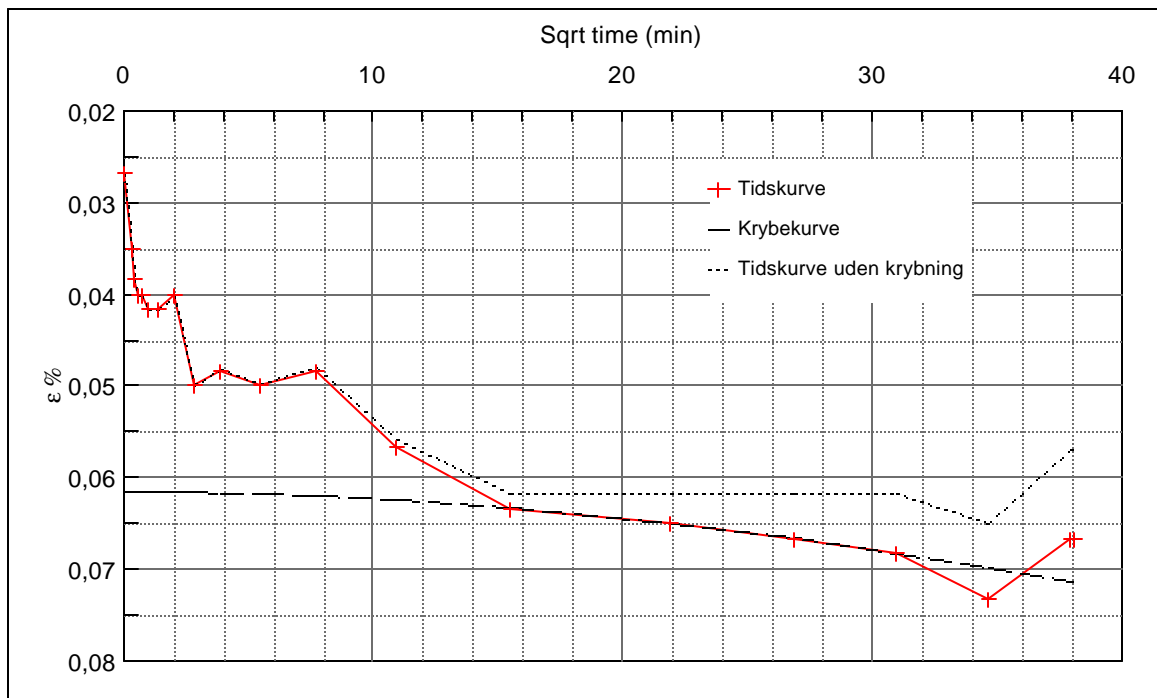
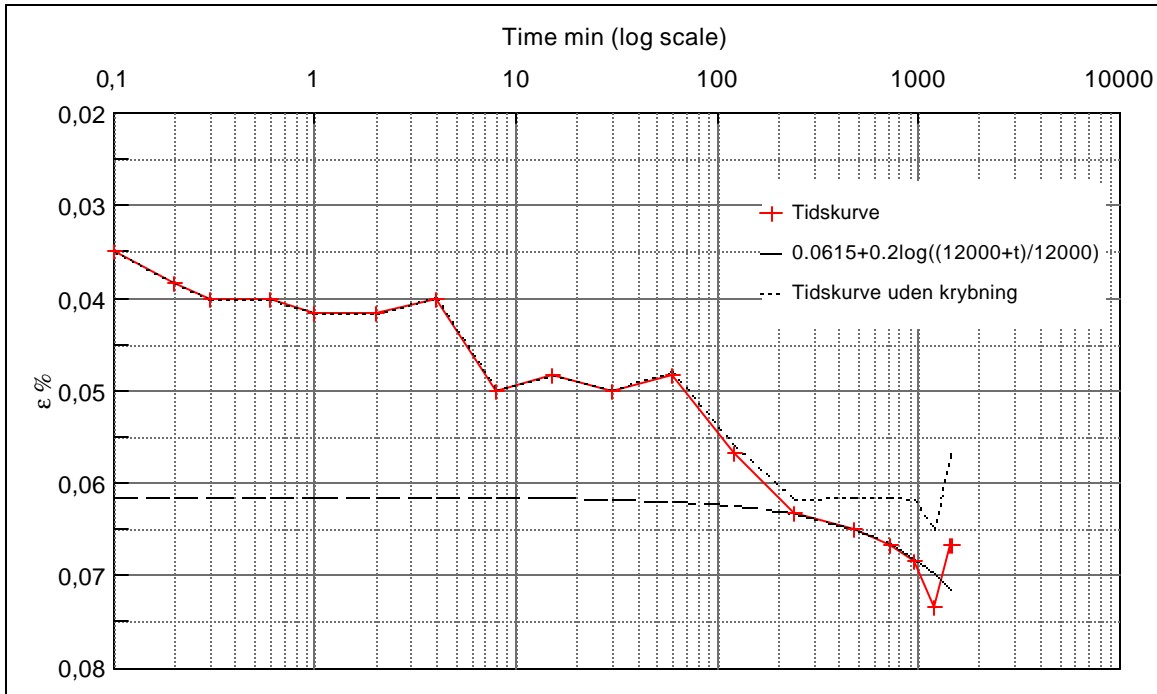


Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.3
Executed: AMS/gt	Check:
Approved:	

27.10.05/gt

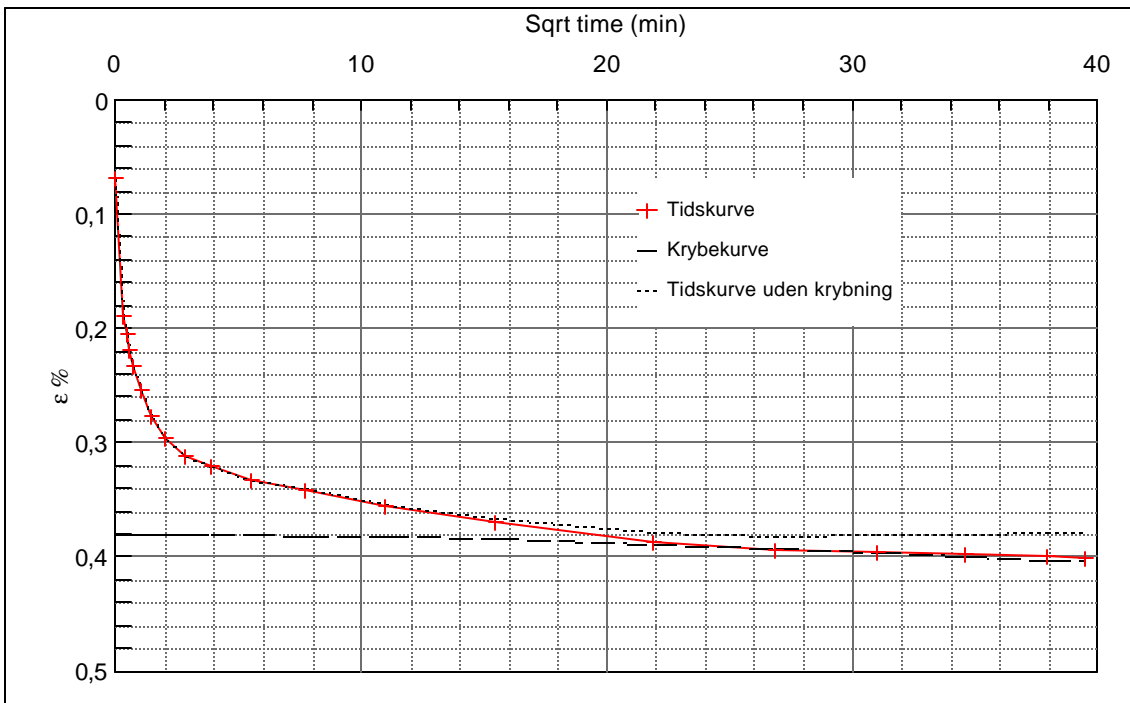
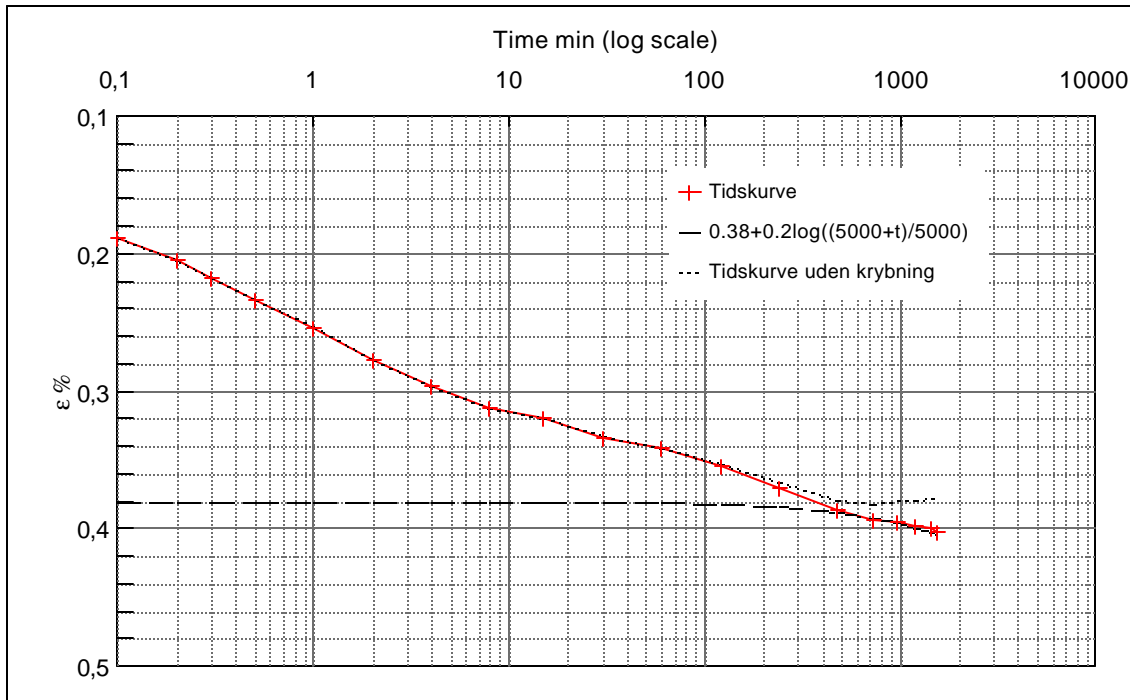
Step no 2	σ	kPa	ϵ	%	ϵ_i		tc in sec	101,4
	Before	11,1	ϵ_0	0,027	ϵ_c	% 0,062	K i kPa	24.901
	After	19,8	$\epsilon_{\sim\#}$	0,067	ϵ_s	0,01	k10 m/sec	3,8E-09
					ϵ_{kryb}	0,01	ck10 m^2/sec	9,56E-06



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.4
Executed: AMS/gt	Check:
Approved:	

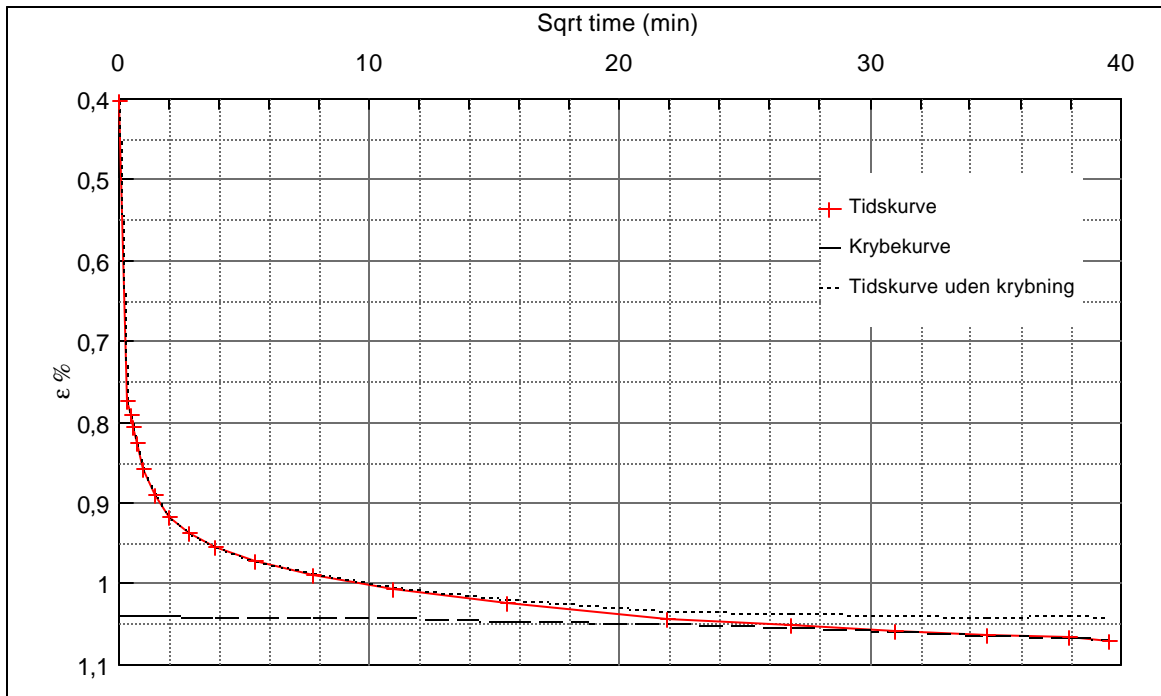
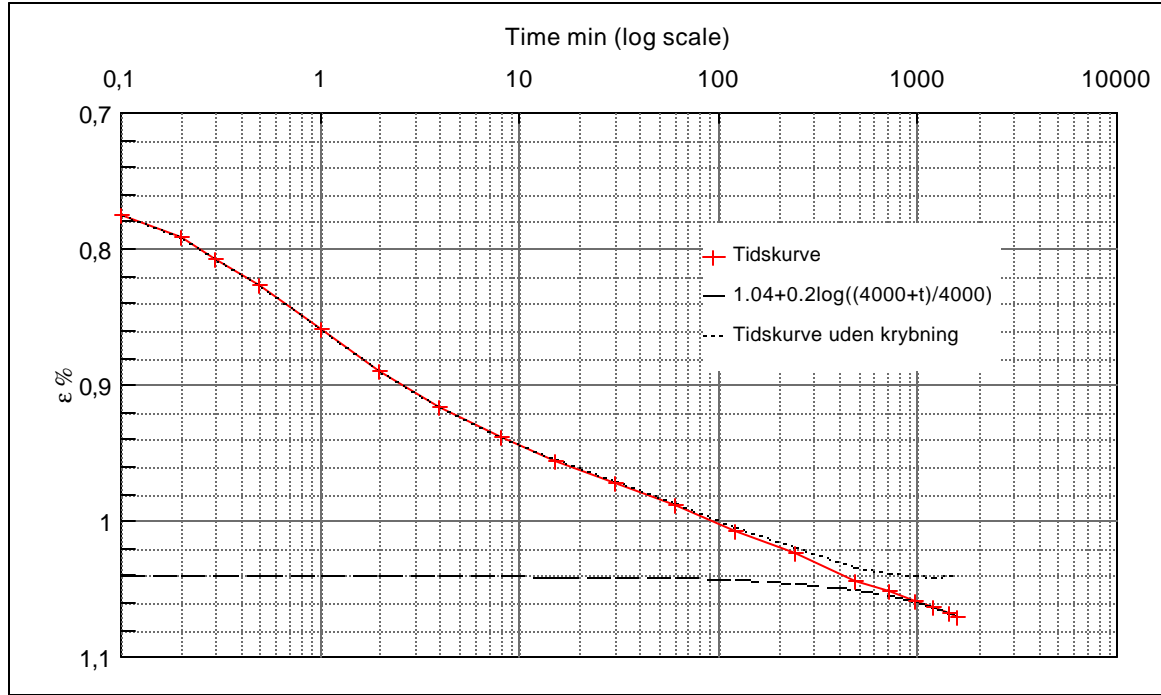
Step no 3	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	19,8	ϵ_0	0,068	ϵ_c %	0,38	K i kPa	5.566
	After	37,1	$\epsilon_{-#}$	0,402	ϵ_s	0,025	k10 m/sec	2,9E-08
					ϵ_{kryb}	0,022	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby		AAU Encl. No 3.5
Executed: AMS/gt	Approved:	Check:

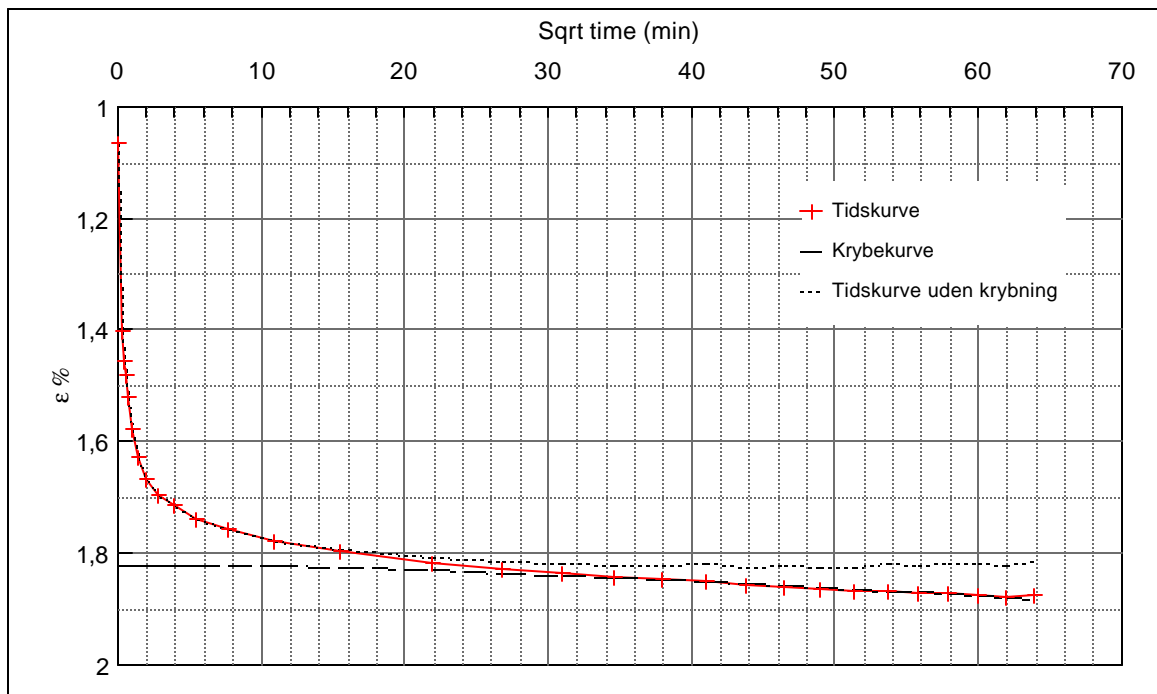
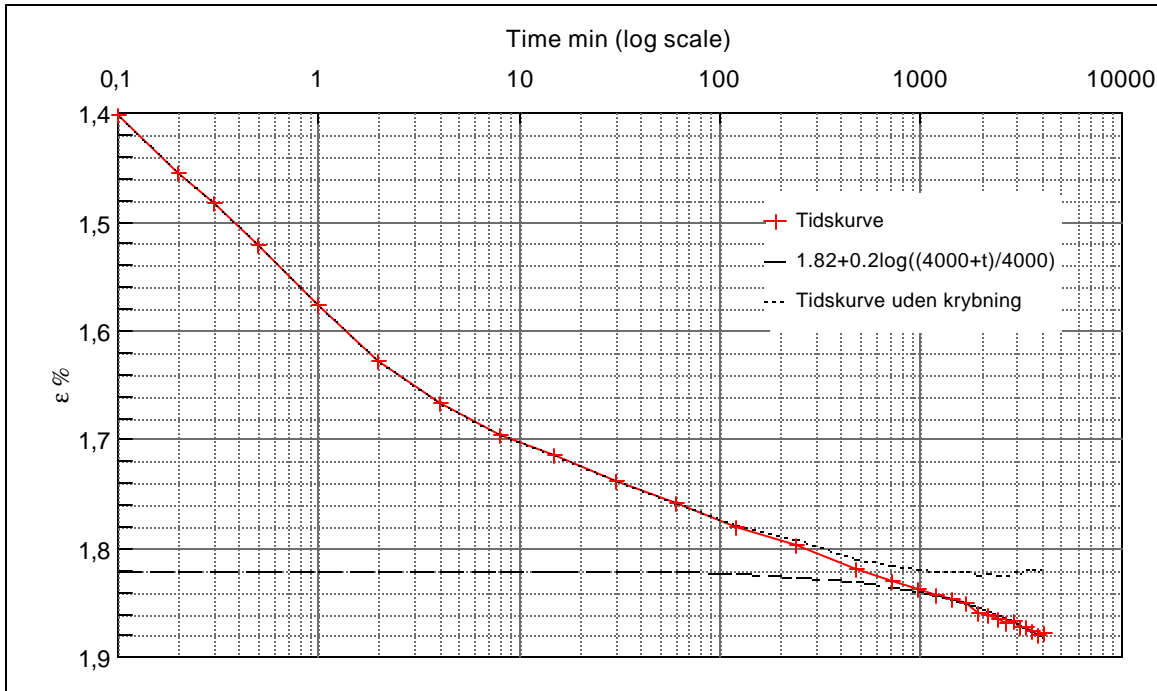
Step no 4	σ	kPa	ε	%	ε_i		tc in sec	240
	Before	37,1	ε_0	0,40	ε_c %	1,04	K i kPa	5.435
	After	71,8	$\varepsilon_{-#}$	1,07	ε_s	0,06	k10 m/sec	7,3E-09
					ε_{kryb}	0,03	ck10 m^2/sec	4,04E-06



Material:	
Clay, marine, Lateglacial	
Bor no :	Depth: 2.2 m.b.s
Lab. no: 358	Insitu stress. ~30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 3.6
Executed:	AMS/gt	Check:
Approved:		

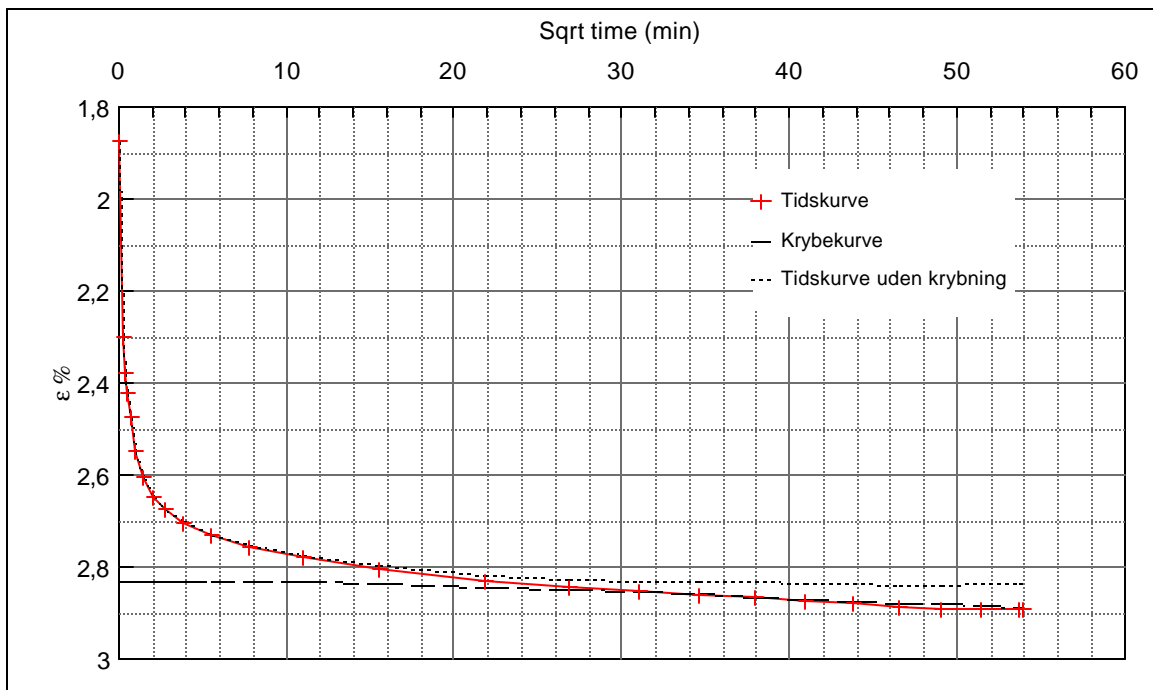
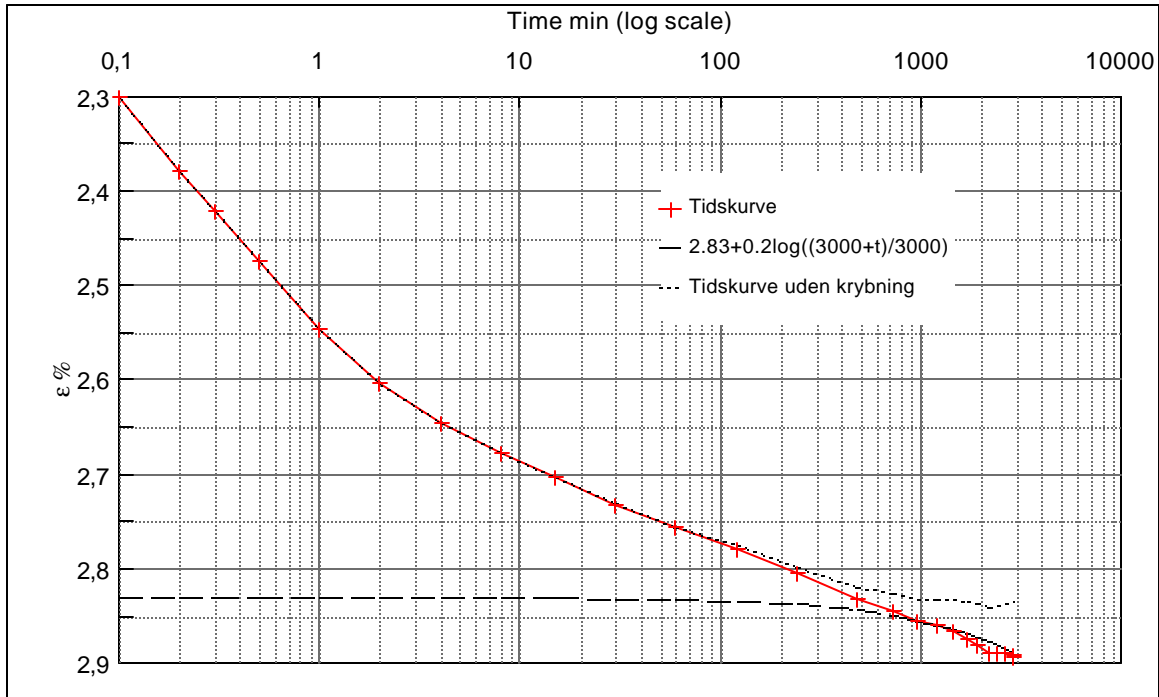
Step no 5	σ	kPa	ε	%	ε_i	tc in sec	60
	Before	71,8	ε_0	1,07	ε_c %	K i kPa	9.211
	After	141,2	$\varepsilon_{-#}$	1,88	ε_s	k10 m/sec	1,7E-08
					ε_{kyb}	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 3.7
Approved:		Check:

Step no 6	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	141,2	ε_0	1,88	ε_c %	2,83	K i kPa	18.165
	After	314,7	$\varepsilon_{-#}$	2,89	ε_s	0,08	k10 m/sec	8,7E-09
					ε_{kryb}	0,06	ck10 m^2 /sec	1,62E-05

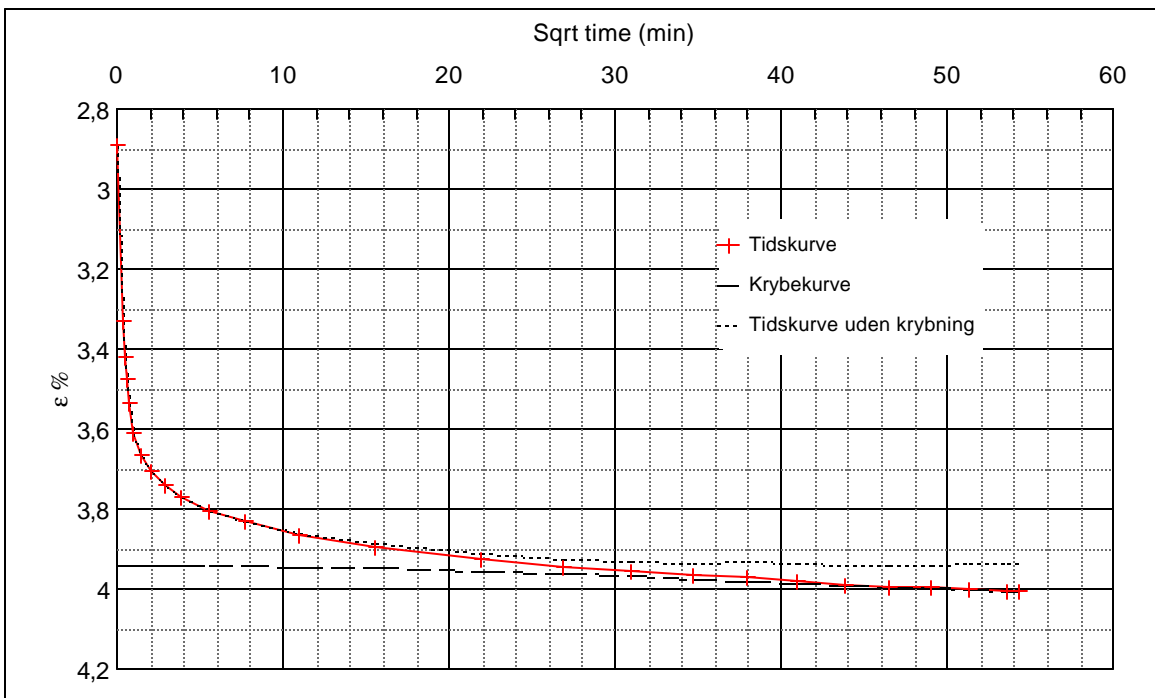
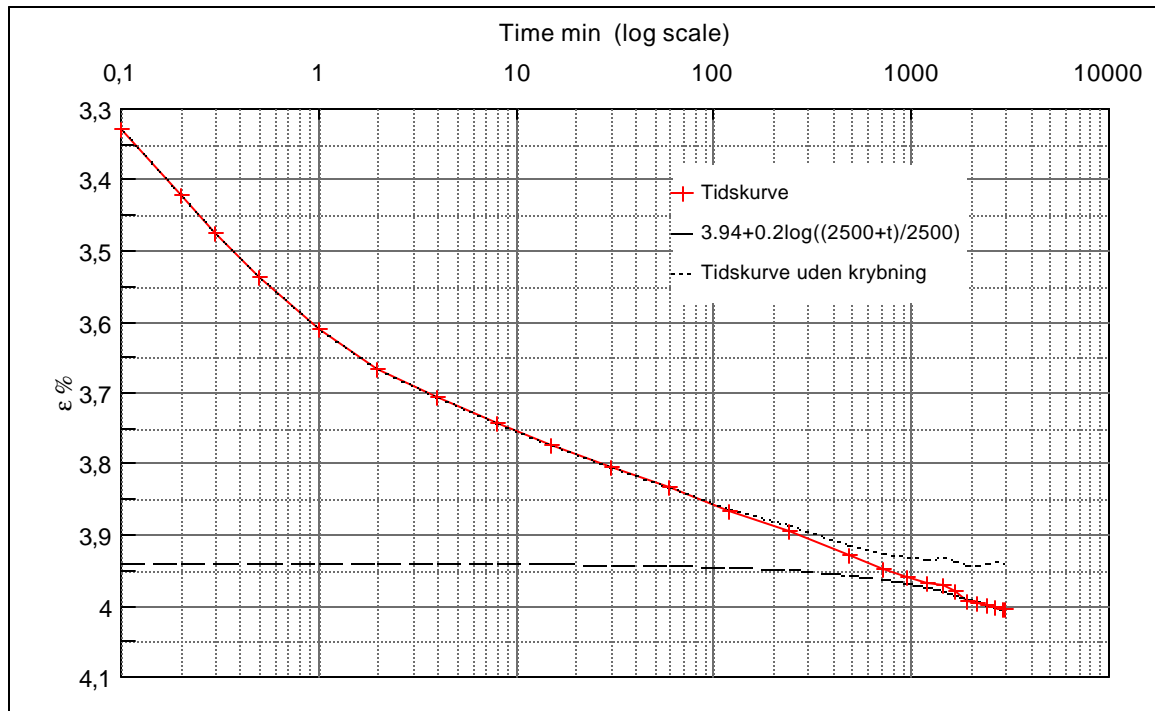


Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby		AAU Encl. No 3.8
Executed:	AMS/gt	Check:
Approved:		

27.10.05/gt

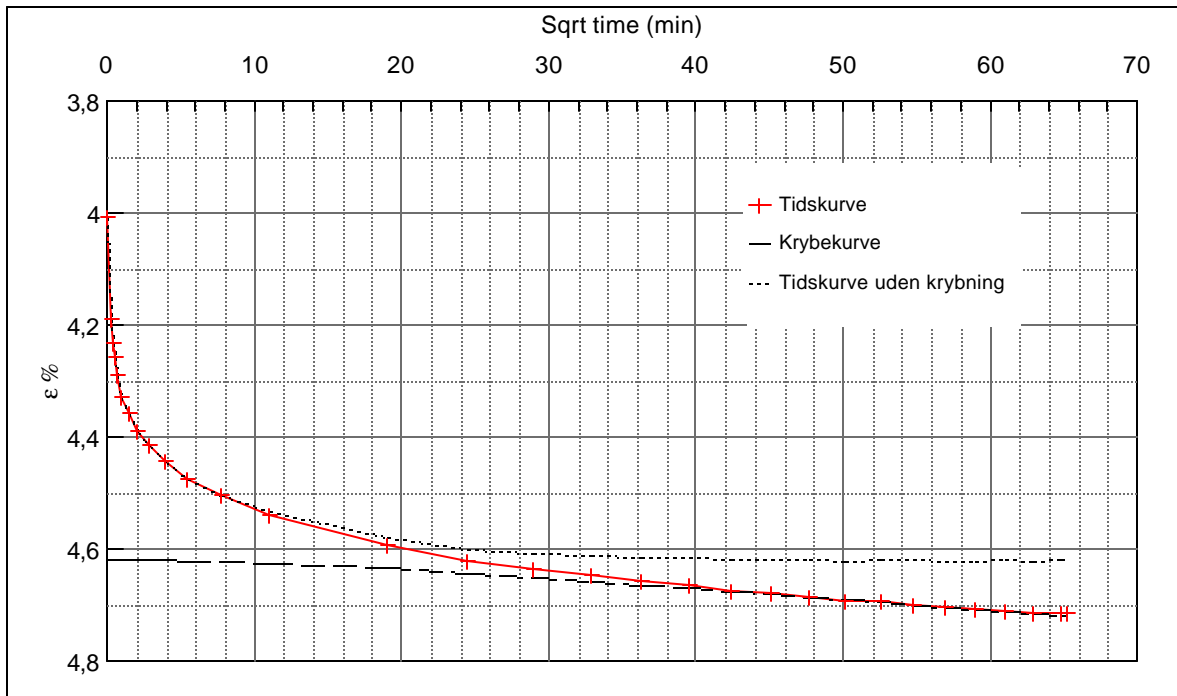
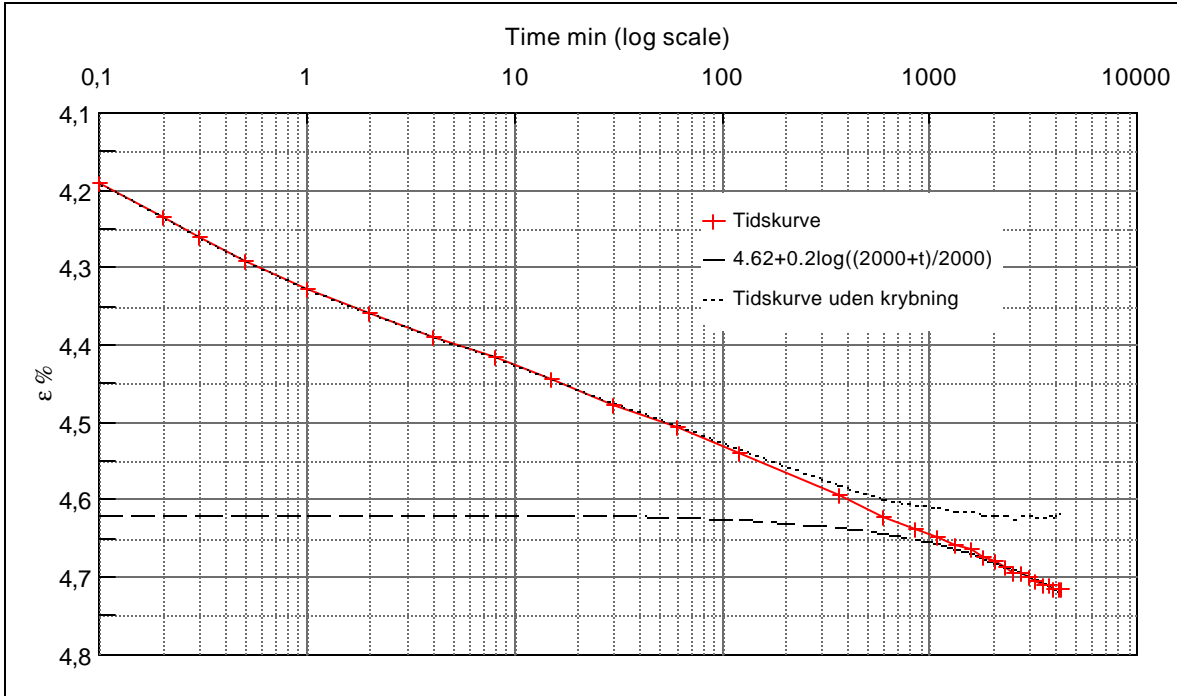
Step no 7	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	314,7	ε_0	2,89	ε_c %	3,94	K i kPa	33.096
	After	661,6	$\varepsilon_{-#}$	4,01	ε_s	0,1	k10 m/sec	4,8E-09
					ε_{kryb}	0,07	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.9
Executed: AMS/gt	Check:
Approved:	

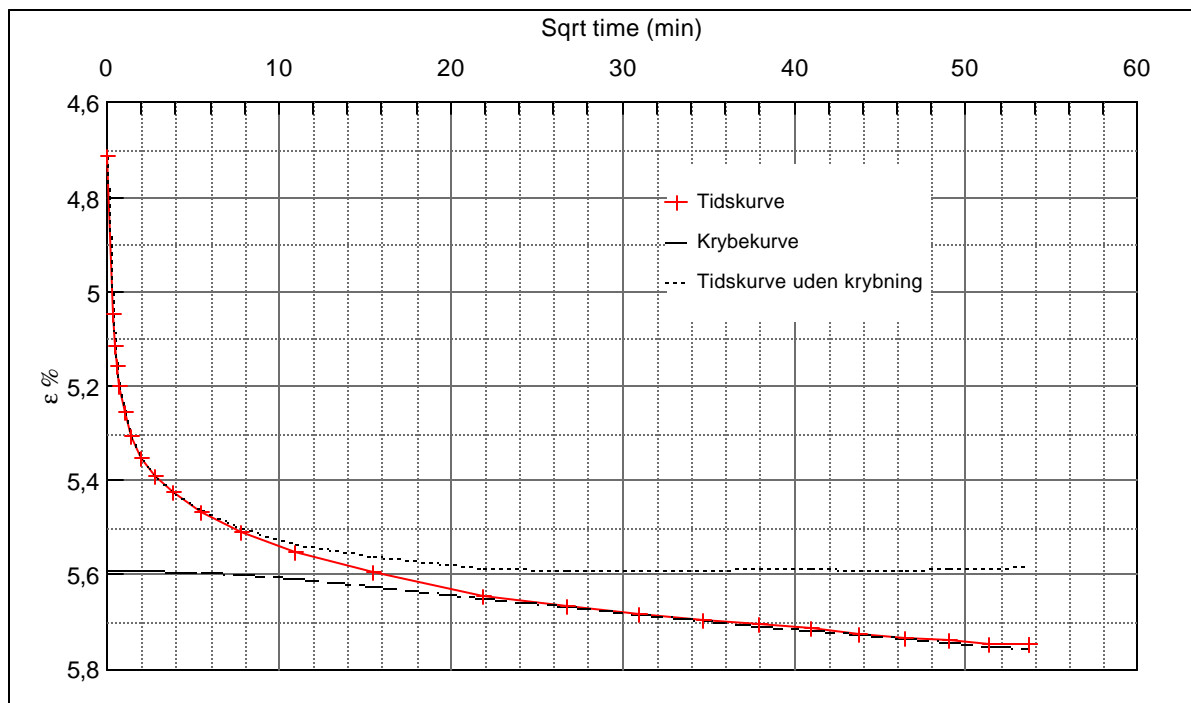
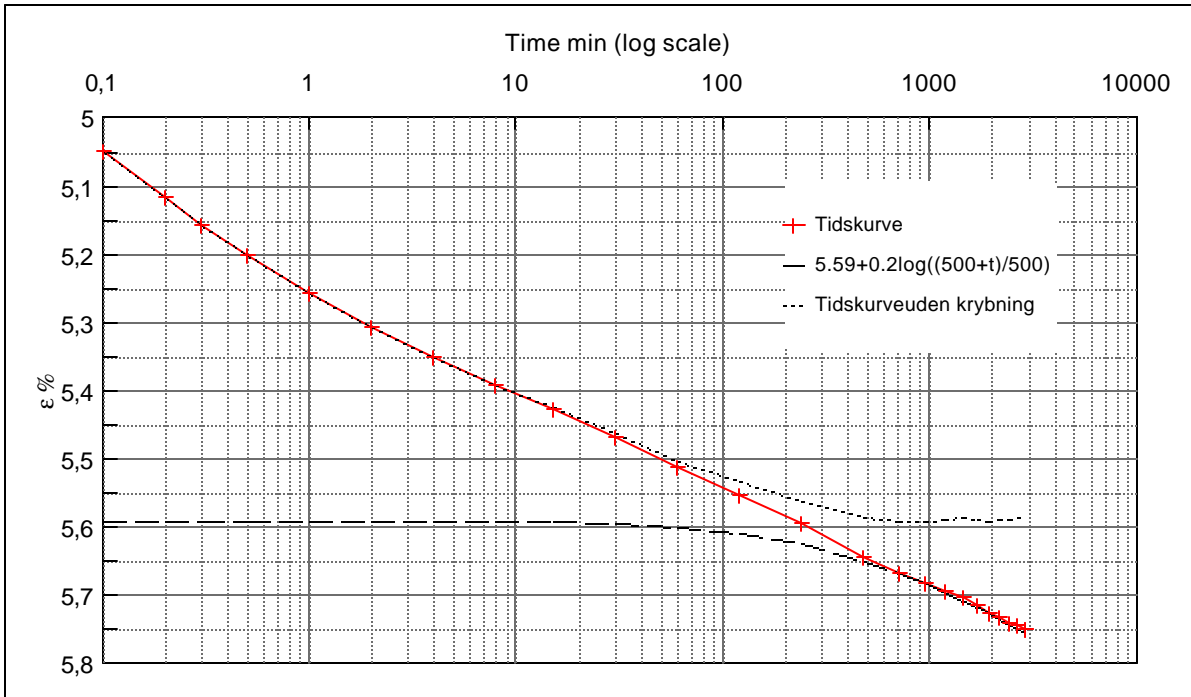
Step no 8	σ	kPa	ε	%	ε_i		tc in sec	135
	Before	661,6	ε_0	4,01	ε_c %	4,62	K i kPa	56.569
	After	1.008,6	$\varepsilon_{-#}$	4,72	ε_s	0,12	k10 m/sec	1,2E-09
					ε_{kryb}	0,10	ck10 m^2/sec	7,18E-06



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 3.10
Approved:		Check:

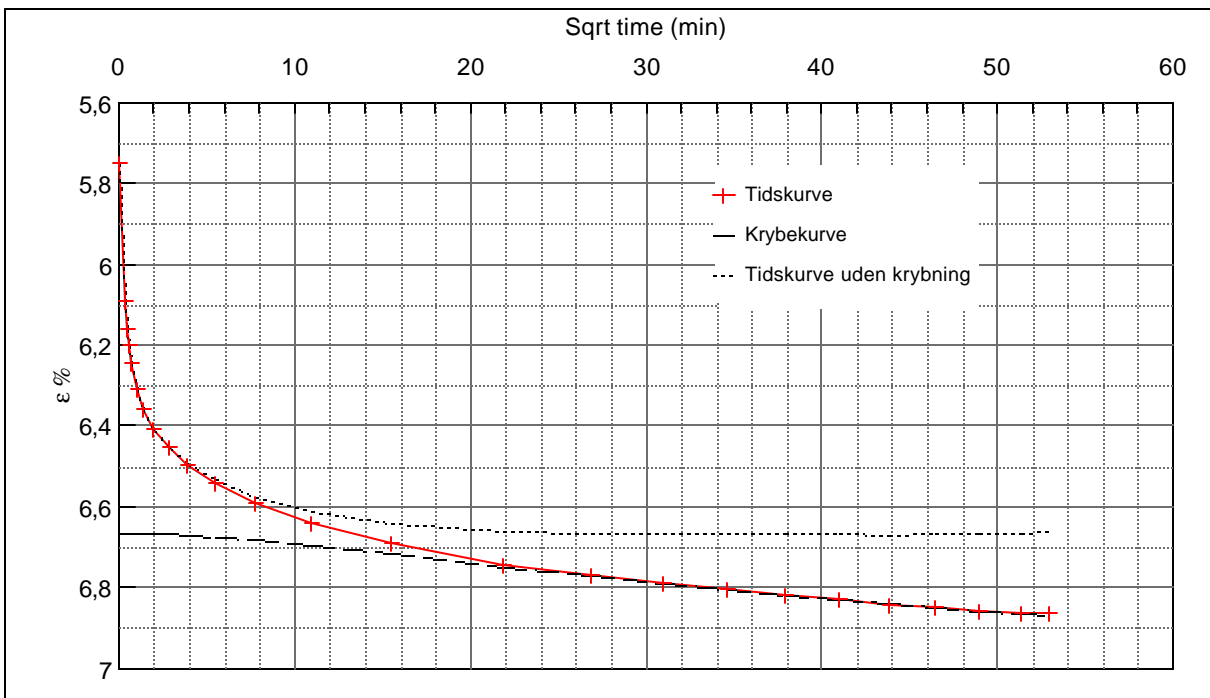
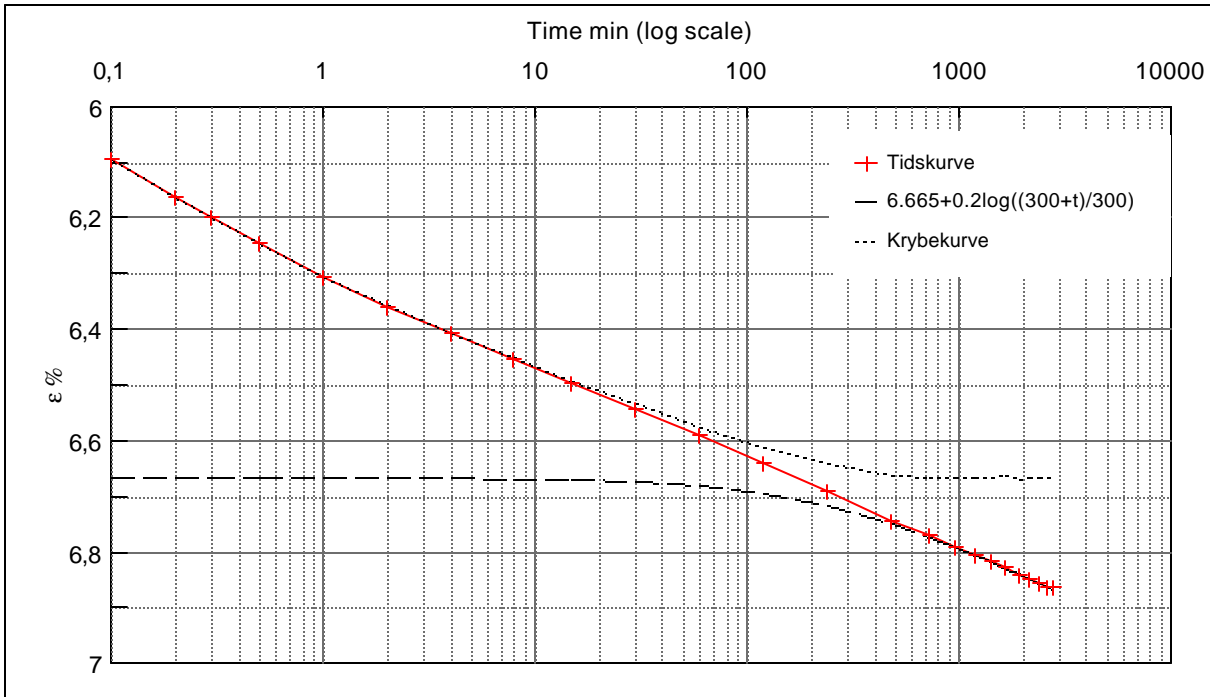
Step no 9	σ	kPa	ε	%	ε_i		t_c in sec	135
	Before	1.008,6	ε_0	4,71	ε_c %	5,59	K_i kPa	79.154
	After	1.702,5	$\varepsilon_{-#}$	5,75	ε_s	0,13	k_{10} m/sec	8,9E-10
					ε_{kryb}	0,16	ck_{10} m ² /sec	7,18E-06



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.11
Executed: AMS/gt	Check:
Approved:	

Step no 10	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	1.702,5	ϵ_0	5,75	ϵ_c %	6,665	K i kPa	113.550
	After	2.743,4	$\epsilon_{-#}$	6,86	ϵ_s	0,18	k10 m/sec	1,4E-09
					ϵ_{kryb}	0,20	ck10 m ² /sec	1,62E-05



Material:
Clay, marine, Lateglacial

Bor no :
Lab. no: 358

Depth: 2.2 m.b.s
Insitu stress. ~30 kPa

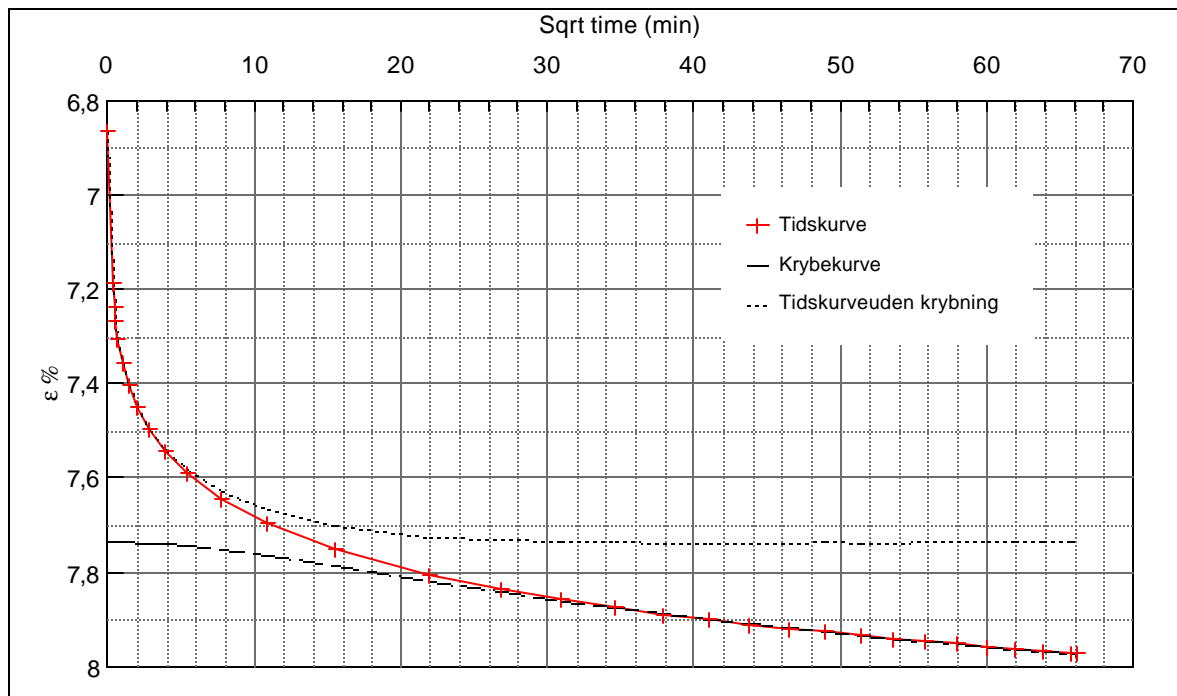
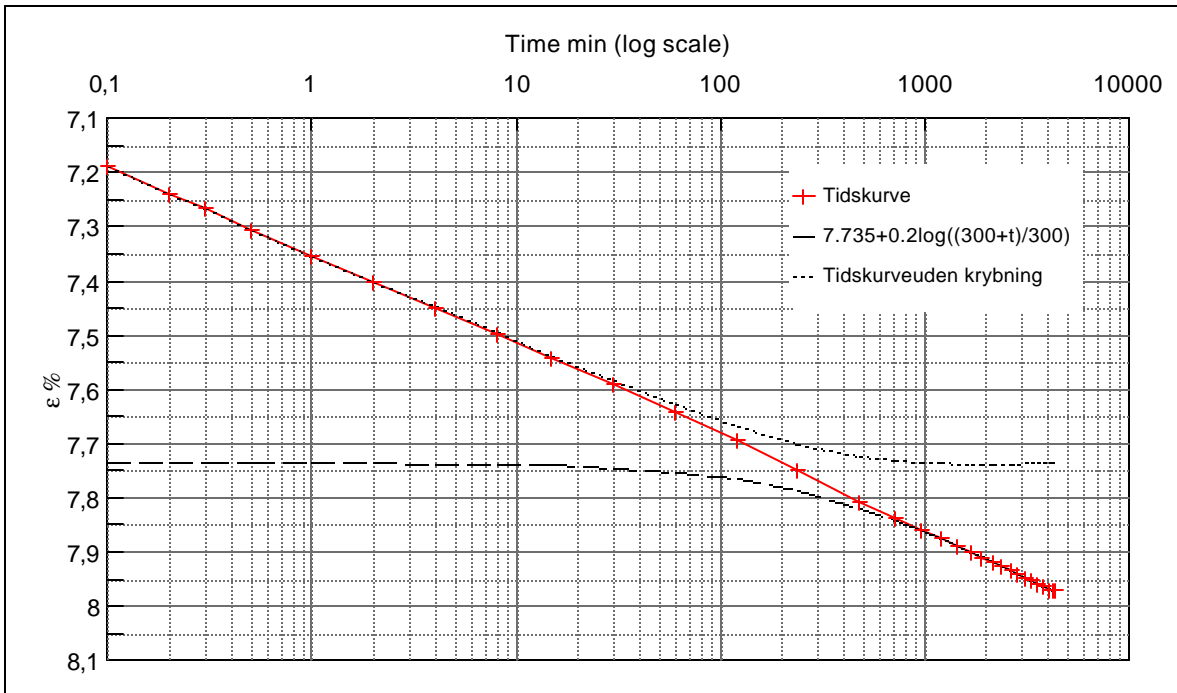
Job:
Nr. Lyngby

Executed: AMS/gt
Approved:

AAU
Encl. No
3.12

Check:

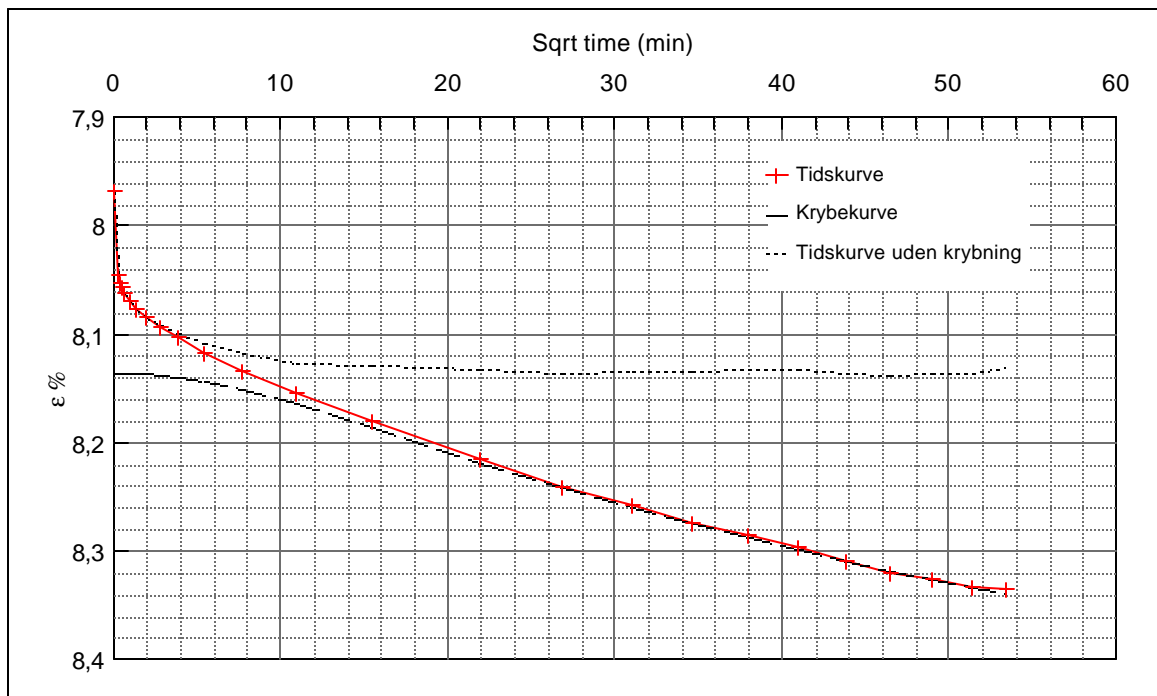
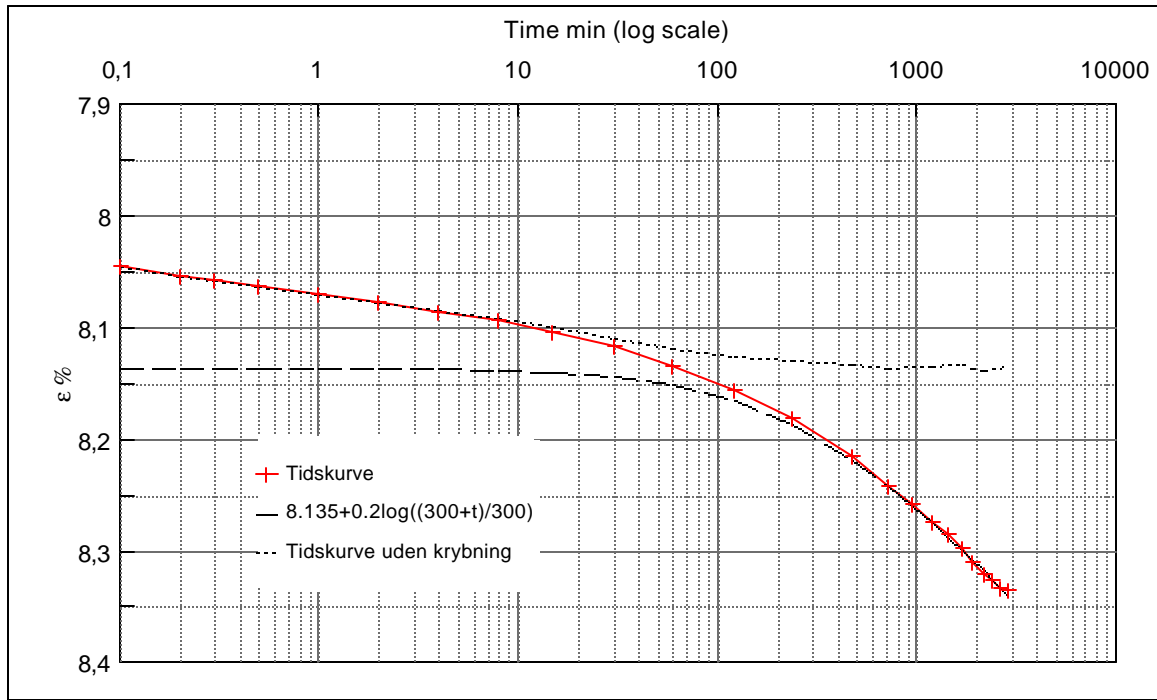
Step no 11	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	2.743,4	ε_0	6,87	ε_c %	7,735	K i kPa	159.521
	After	4.131,2	$\varepsilon_{\sim\#}$	7,97	ε_s	0,18	k10 m/sec	9,9E-10
					ε_{kryb}	0,235	ck10 m ² /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.13
Executed: AMS/gt	Check:
Approved:	

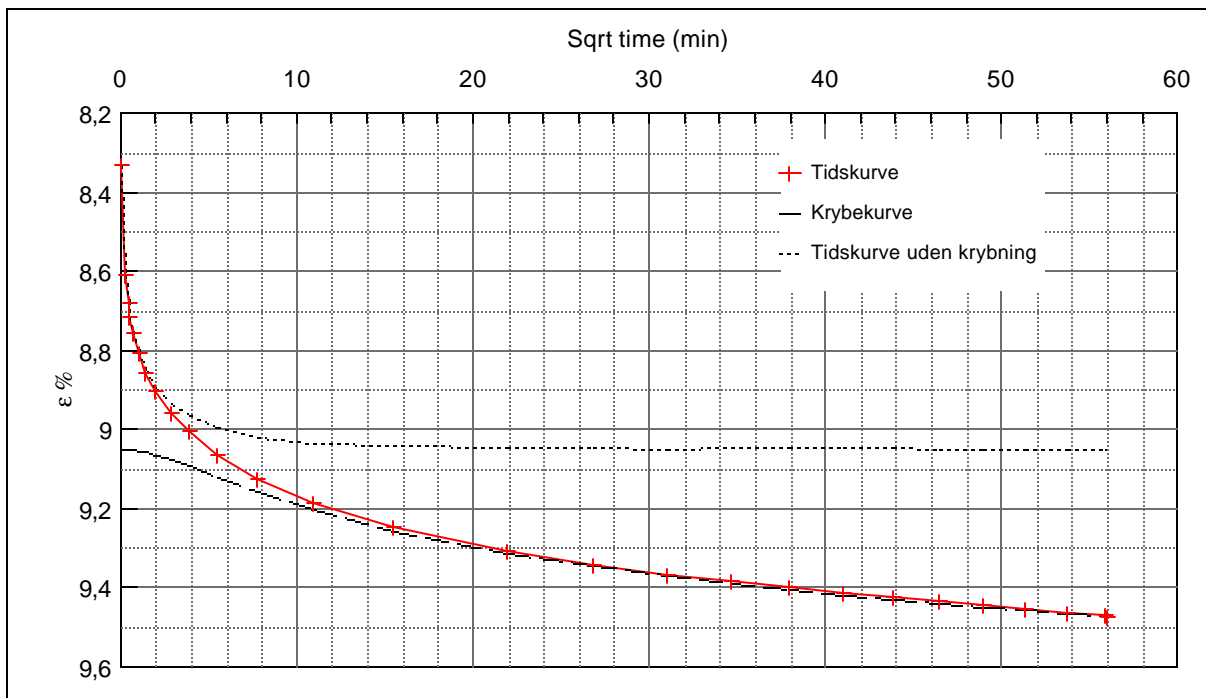
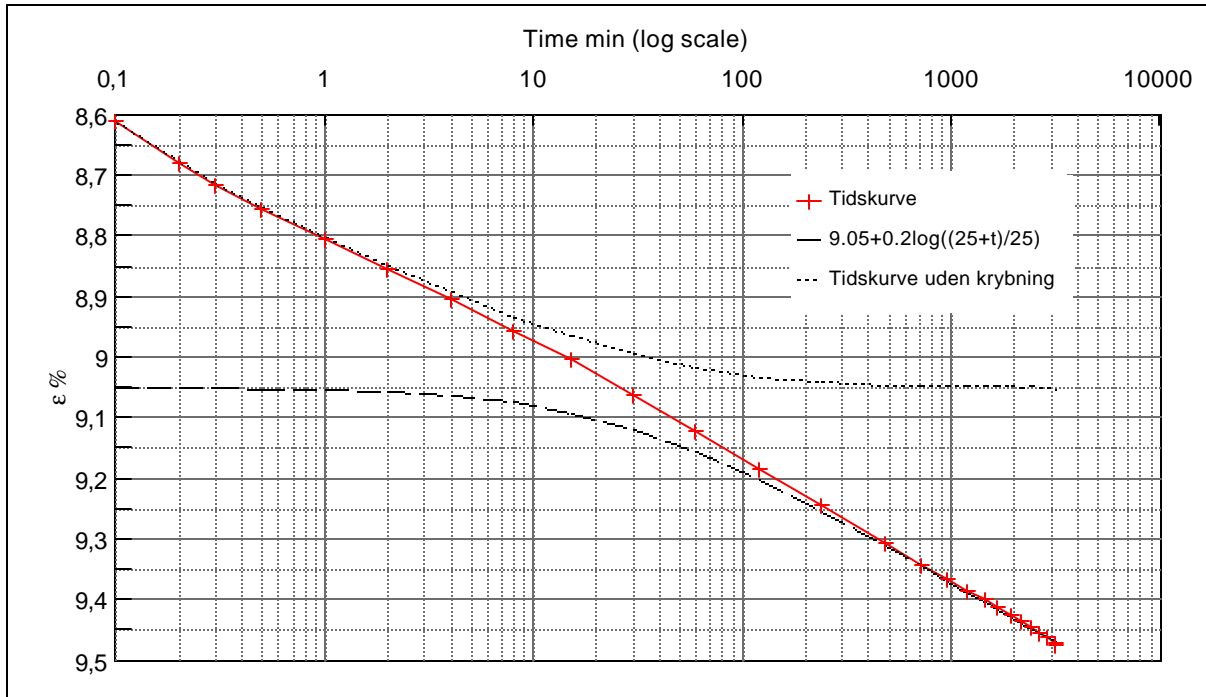
Step no 12	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	4.131,2	ε_0	7,97	ε_c %	8,135	K i kPa	416.349
	After	4.825,1	$\varepsilon_{\sim\#}$	8,34	ε_s	0,18	k10 m/sec	3,8E-10
					ε_{kryb}	0,20	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.14
Executed: AMS/gt	Check:
Approved:	

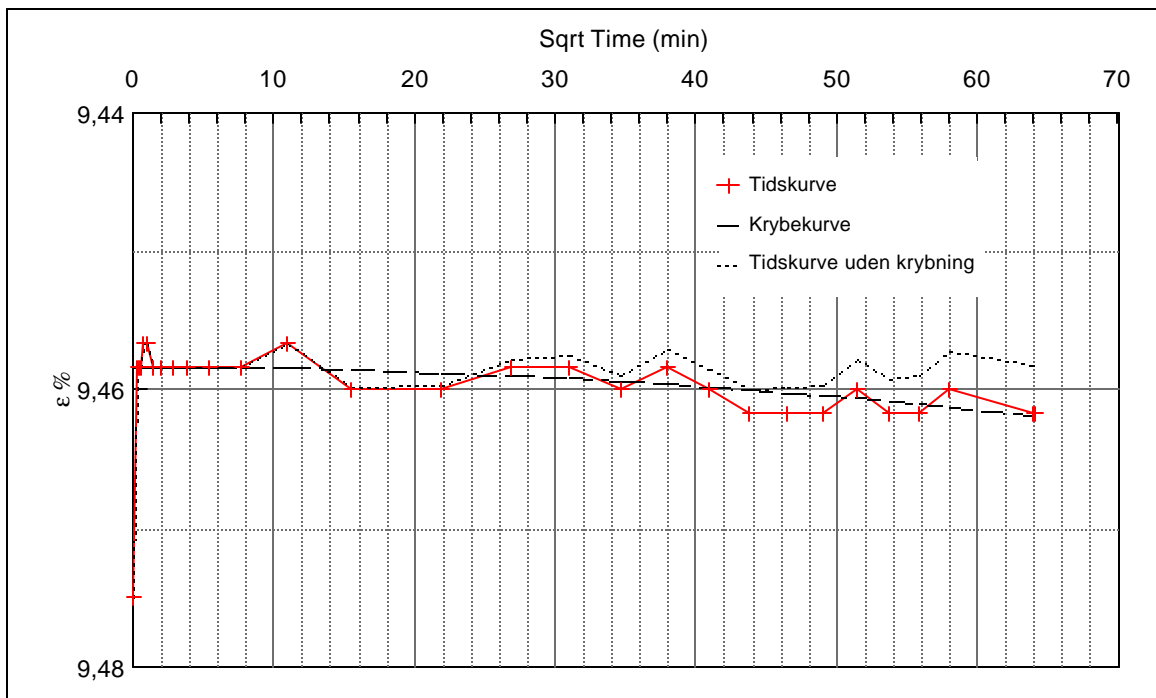
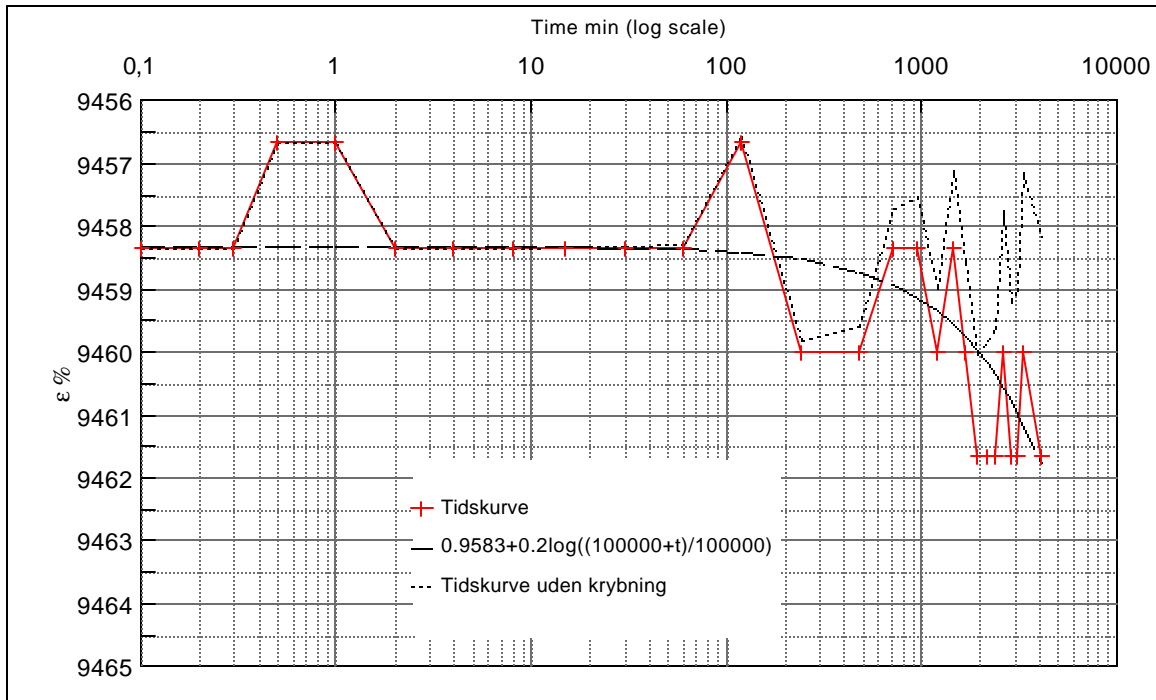
Step no 13	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	4.825,1	ε_0	8,33	ε_c %	9,05	K i kPa	290.476
	After	6.906,9	$\varepsilon_{-#}$	9,48	ε_s	0,2	k10 m/sec	5,5E-10
					ε_{kryb}	0,43	ck10 m ² /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.15
Executed: AMS/gt	Check:
Approved:	

Step no 14	σ	kPa	ε	%	ε_i		tc in sec	15
	Before	6.906,9	ε_0	9,48	ε_c %	9,458	K i kPa	6.232.774
	After	5.866,0	$\varepsilon_{-#}$	9,46	ε_s	0,002	k10 m/sec	1,0E-10
					ε_{kryb}	0,004	ck10 m^2/sec	6,47E-05

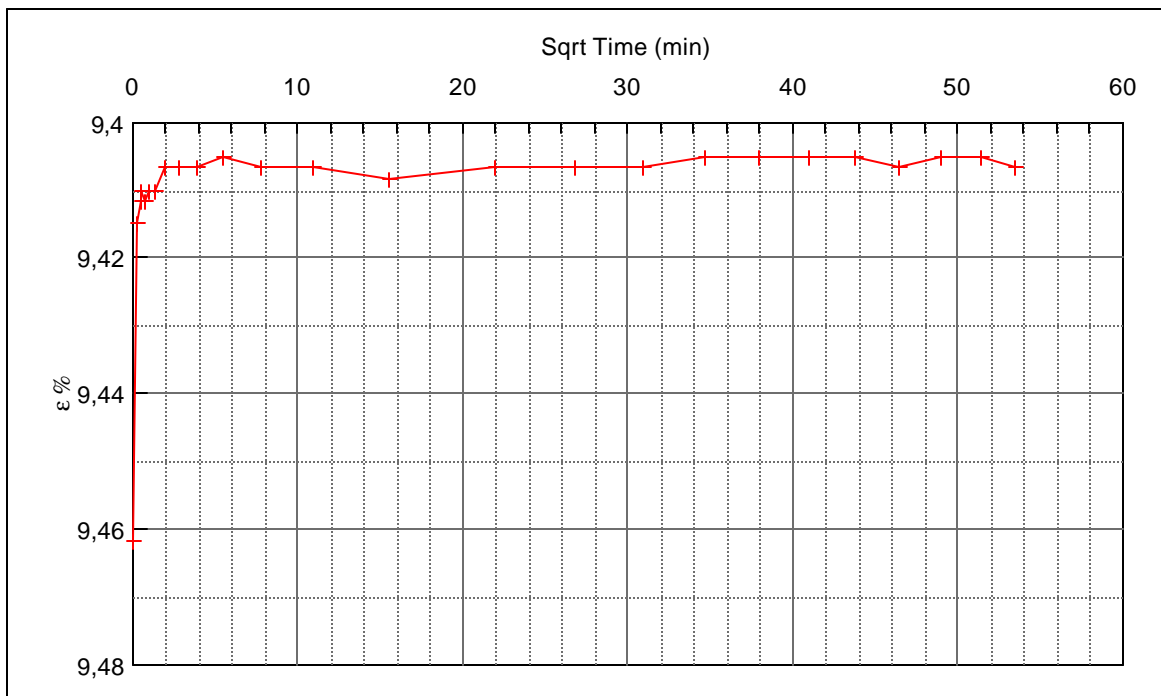
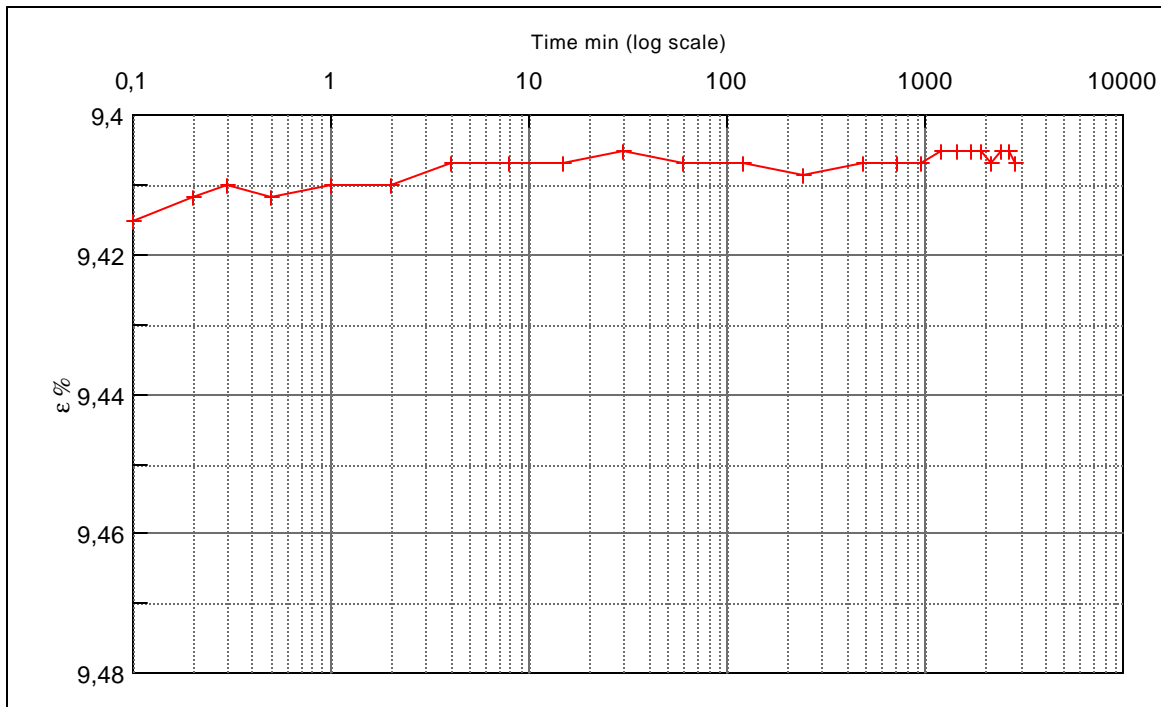


Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.16
Executed: AMS/gt	Check:
Approved:	

27.10.05/gt

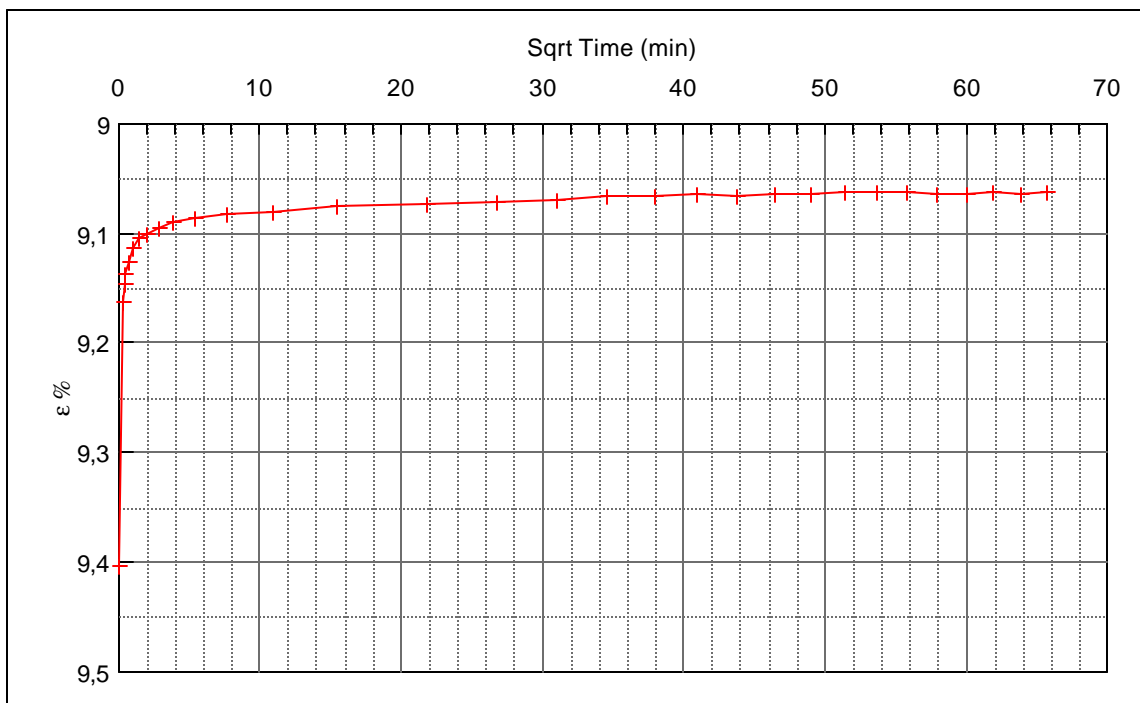
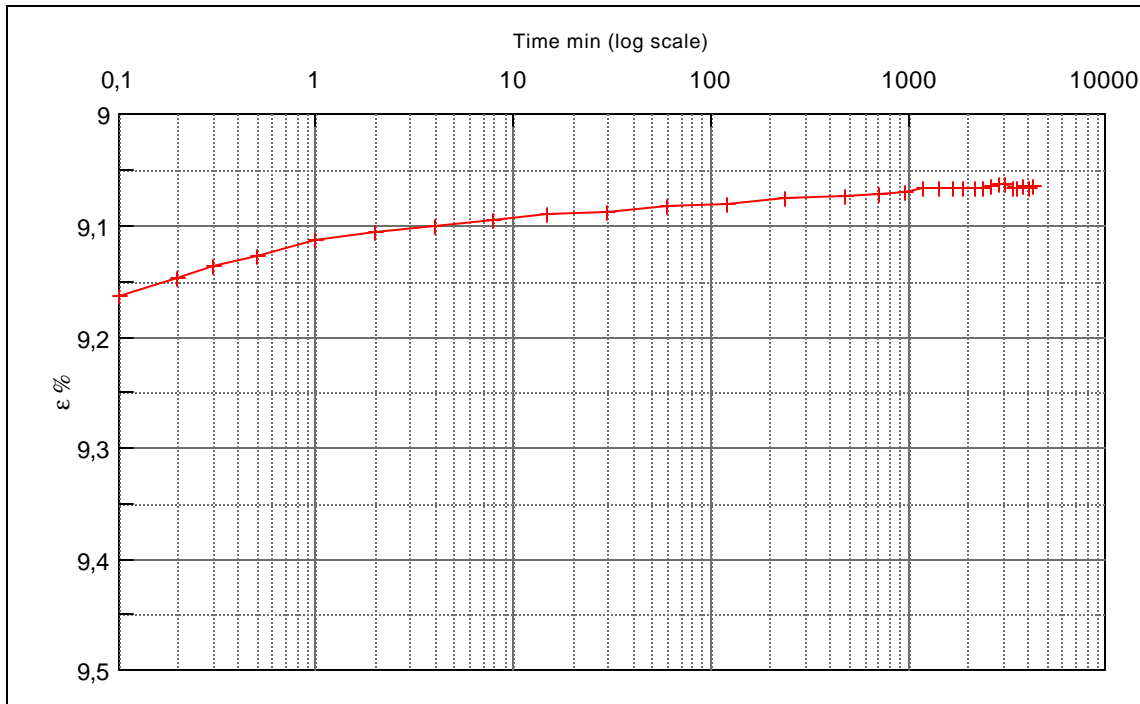
Step no 15	σ	kPa	ε	%	ε_i		tc in sec	15
	Before	5.866,0	ε_0	9,46	ε_c %	9,41	K i kPa	3.173.394
	After	4.131,2	$\varepsilon_{-#}$	9,41	ε_s		k10 m/sec	2,0E-10
					ε_{kyb}		ck10 m^2/sec	6,47E-05



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.17
Executed: AMS/gt	Check:
Approved:	

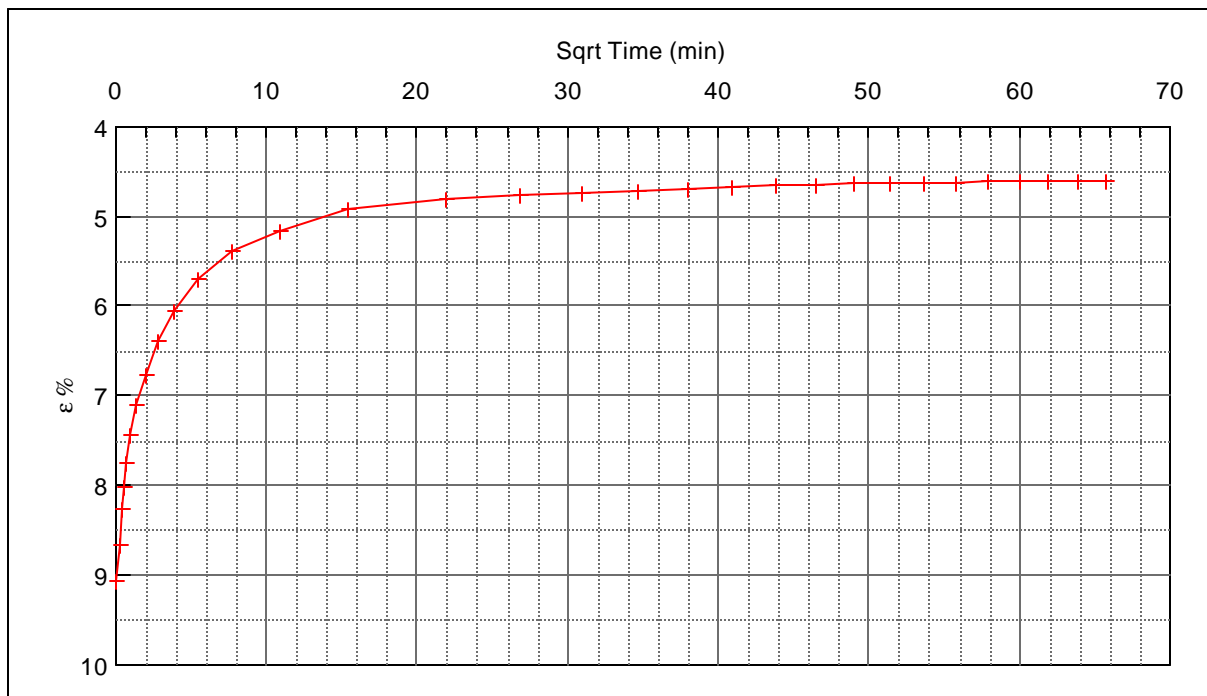
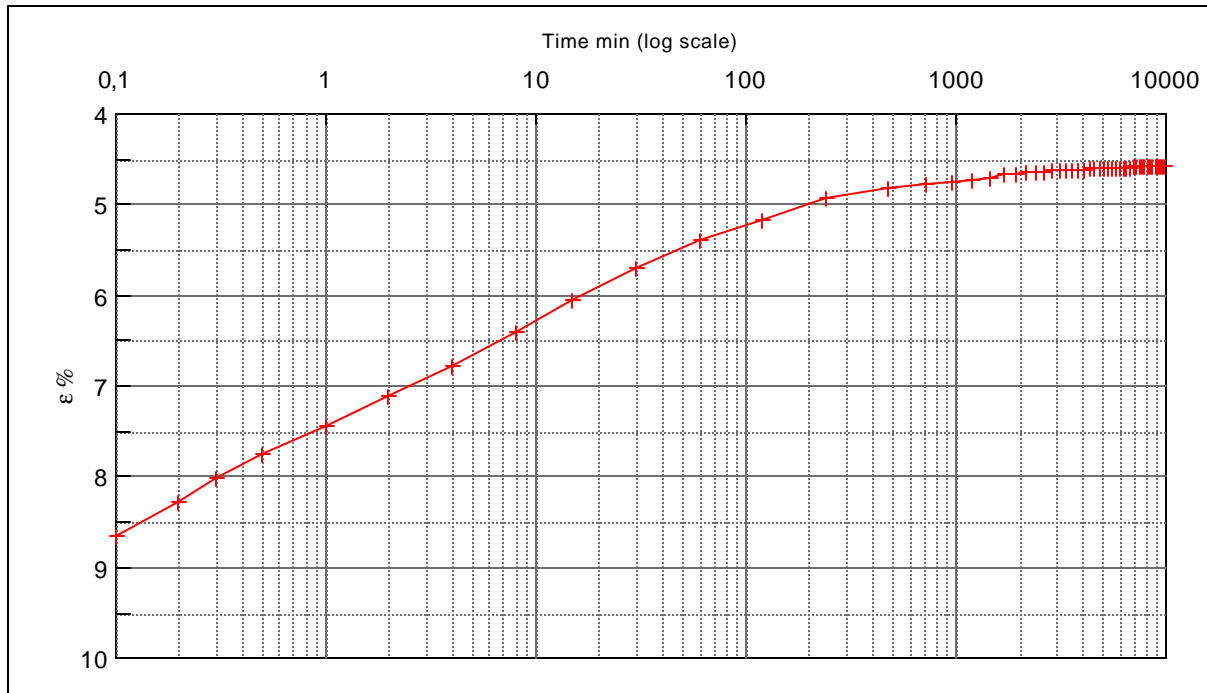
Step no 16	σ	kPa	ε	%	ε_i	tc in sec	240
	Before	4.131,2	ε_0	9,40	ε_c %	K i kPa	713.625
	After	1.702,5	$\varepsilon_{-#}$	9,06	ε_s	k10 m/sec	5,6E-11
					ε_{kryb}	ck10 m ² /sec	4,04E-06



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 3.18
Executed: AMS/gt	Check:
Approved:	

Step no 17	σ	kPa	ϵ	%	ϵ_i		tc in sec	540
	Before	1.702,5	ϵ_0	9,06	ϵ_c %	4,57	K i kPa	37.839
	After	2,4	$\epsilon_{-#}$	4,57	ϵ_s		k10 m/sec	4,7E-10
					ϵ_{kryb}		ck10 m^2/sec	1,80E-06

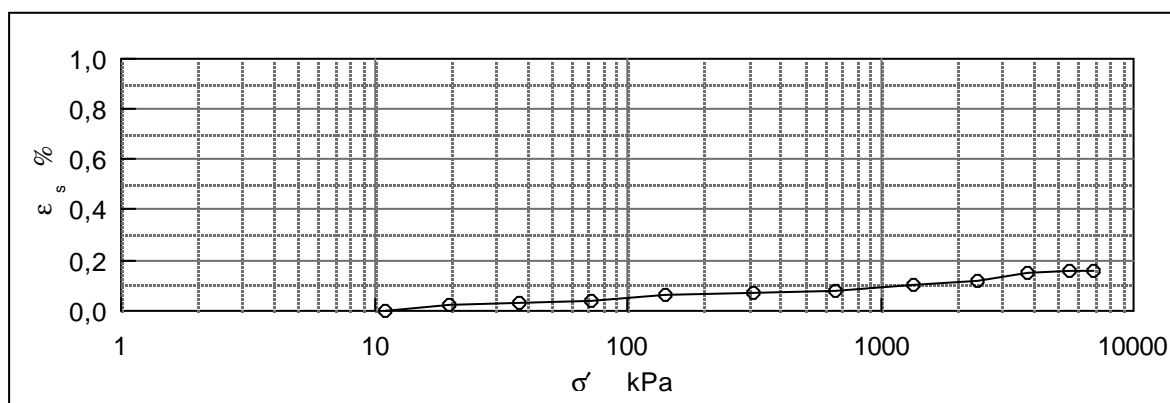
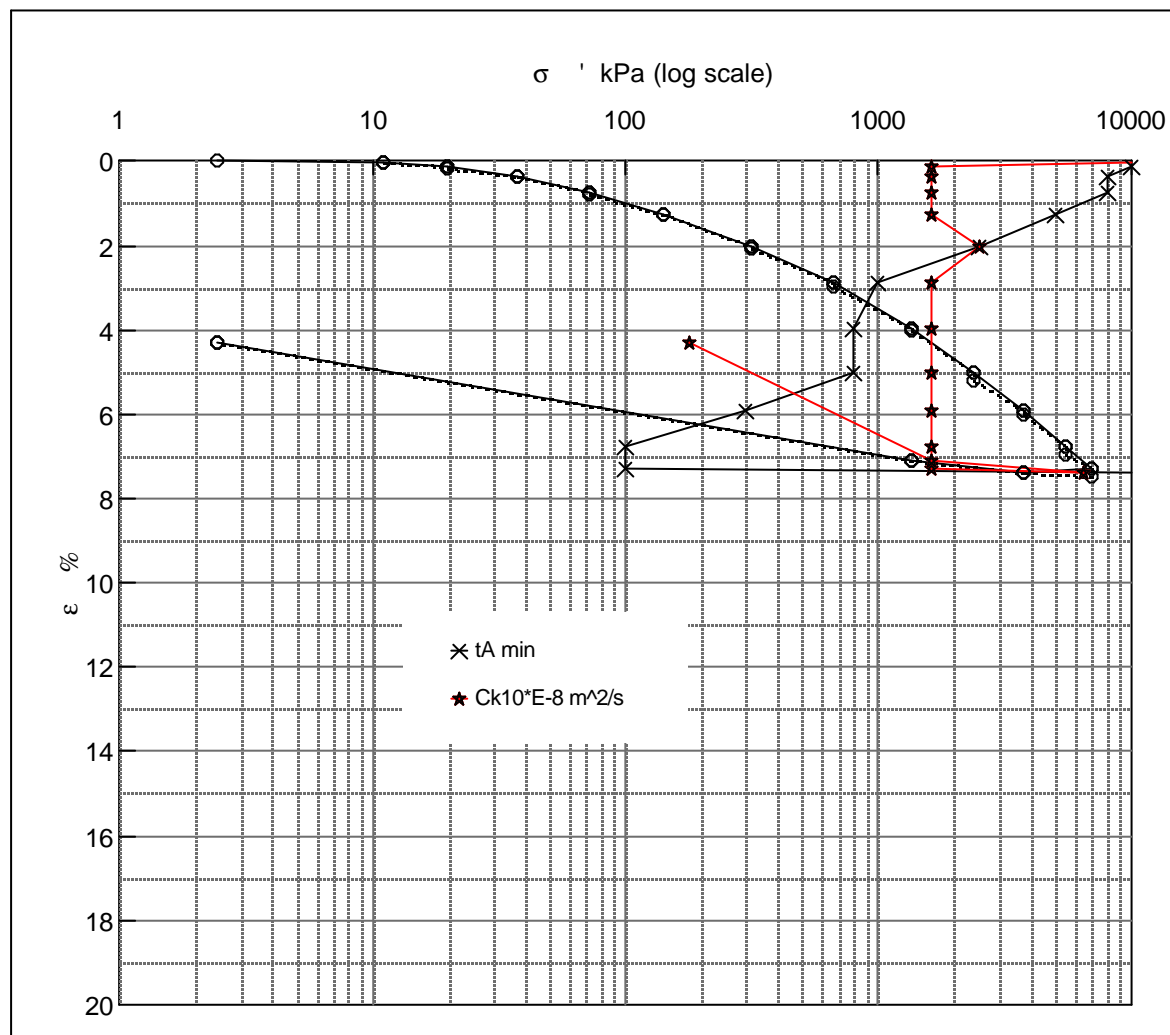


Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 358	Depth: 2.2 m.b.s Insitu stress. ~30 kPa

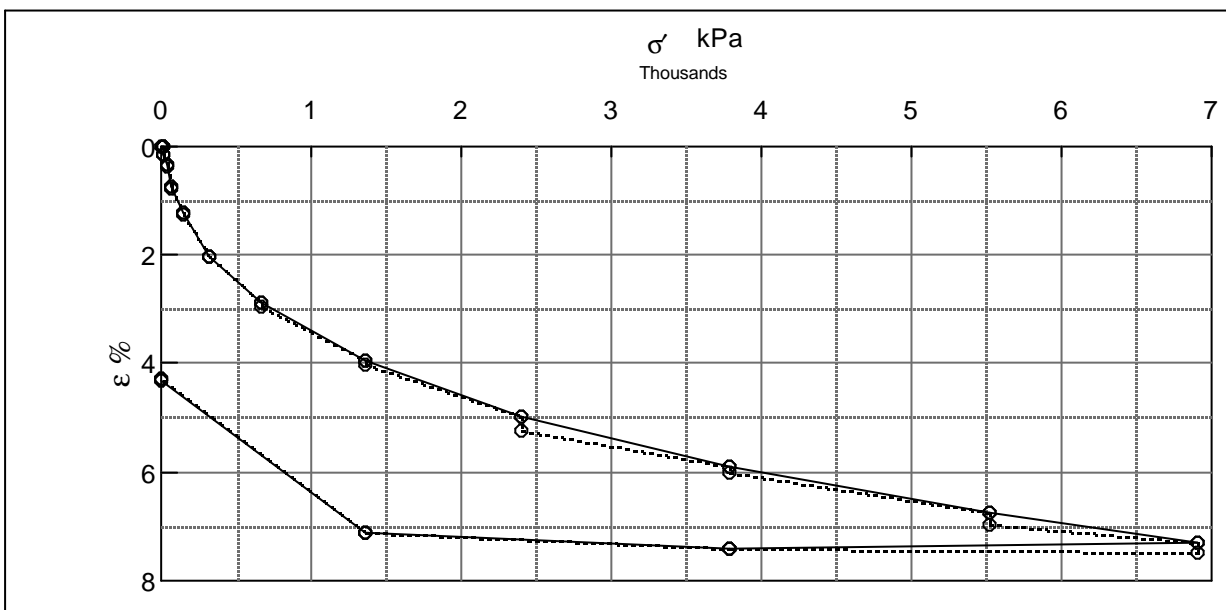
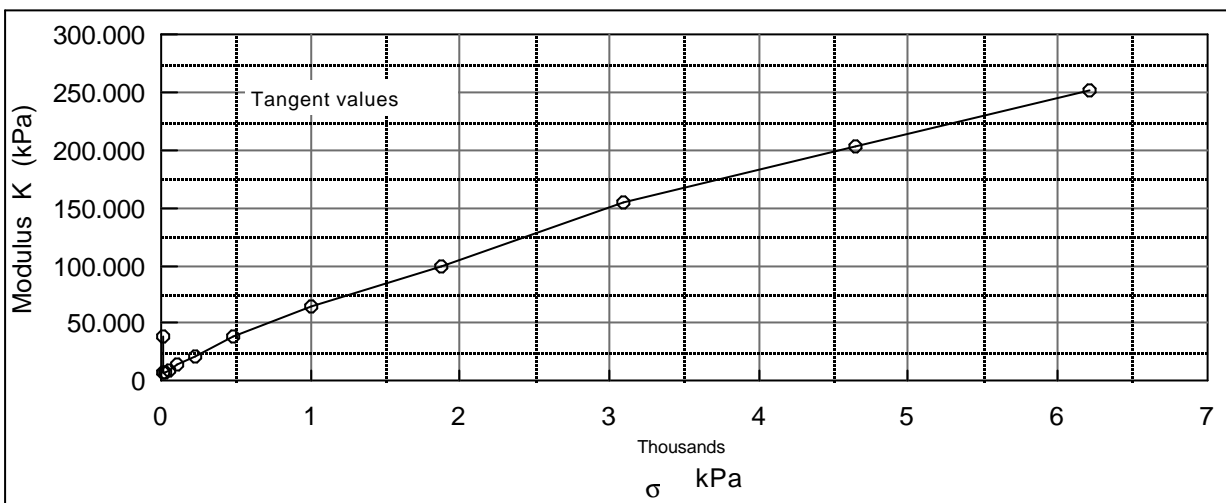
Job: Nr. Lyngby	AAU
	Encl. No 3.19
Executed: AMS/gt	Check:
Approved:	

27.10.05/gt

Description of soil: Clay, marin. Lateglacial			Water content %	Before	After
			Bulk density Mg/m ³	16,4	16,7
			Grain density Mg/m ³	2,06	2,17
			Void ratio	2,7	0,53
Bor no :	Overburden pressure σ'_o	~30 kPa	Void ratio	0,53	0,45
Lab. no: 380	Vane strength c_v	360 kPa	Degr. of Saturation %	84	100
Level : 2.2 m.b.s	CPT - value q_c	MPa	Dimension H x D mm	30x60	



Job: Nr. Lyngby		AAU
		Encl. No 4.1
Executed:	AMS/gt	Check:
Approved:		

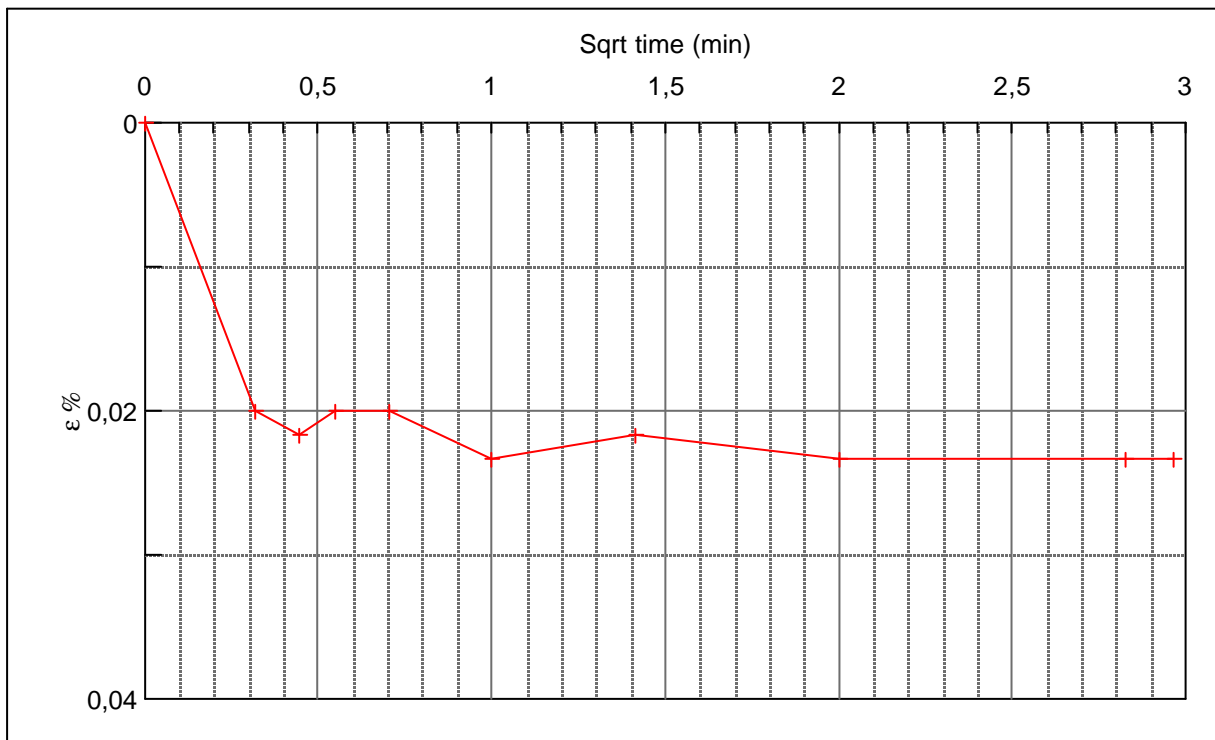
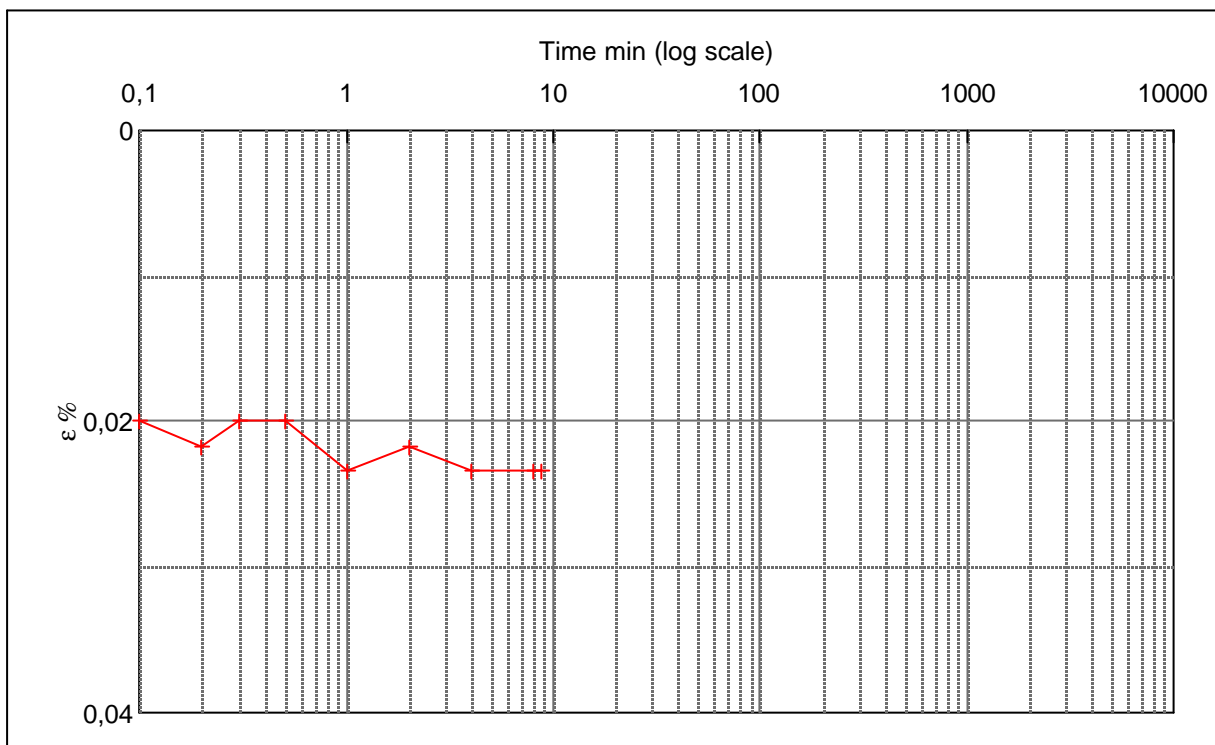


Test results		σ	ε_c	ε_s	C k10	σ_m	K	w
		kPa	%	% / lct	m ² /s	kPa	kPa	%
Q	~6 ? %	2,4	0,00					19,1
Qs	0,16 %	11,1	0,02	0,00	1,0E-04	6,8	39427,0	19,1
σ_{pc}	?	19,8	0,15	0,02	1,6E-05	15,4	6939,2	19,0
		37,1	0,36	0,03	1,6E-05	28,5	8144,5	18,9
		71,8	0,75	0,04	1,6E-05	54,5	8896,4	18,7
		141,2	1,24	0,06	1,6E-05	106,5	14161,5	18,4
		314,7	2,02	0,07	2,5E-05	228,0	22240,9	18,0
		661,6	2,90	0,08	1,6E-05	488,2	39427,0	17,5
		1.355,6	3,96	0,10	1,6E-05	1.008,6	65463,7	16,9
		2.396,4	5,00	0,12	1,6E-05	1.876,0	100084,0	16,3
		3.784,3	5,90	0,15	1,6E-05	3.090,4	154203,5	15,8
		5.519,1	6,75	0,16	1,6E-05	4.651,7	204092,8	15,3
		6.906,9	7,30	0,16	1,6E-05	6.213,0	252332,9	15,0
		3.784,3	7,40		6,5E-05	5.345,6	-3122620,0	14,9
		1.355,6	7,10		1,6E-05	2.569,9	815001,5	15,1
		2,4	4,30		1,8E-06	679,0	48326,3	16,7

Remark:

Job:		AAU
Nr. Lyngby		Encl. No 4.2
Executed:	AMS/gt	Check:
Approved:		

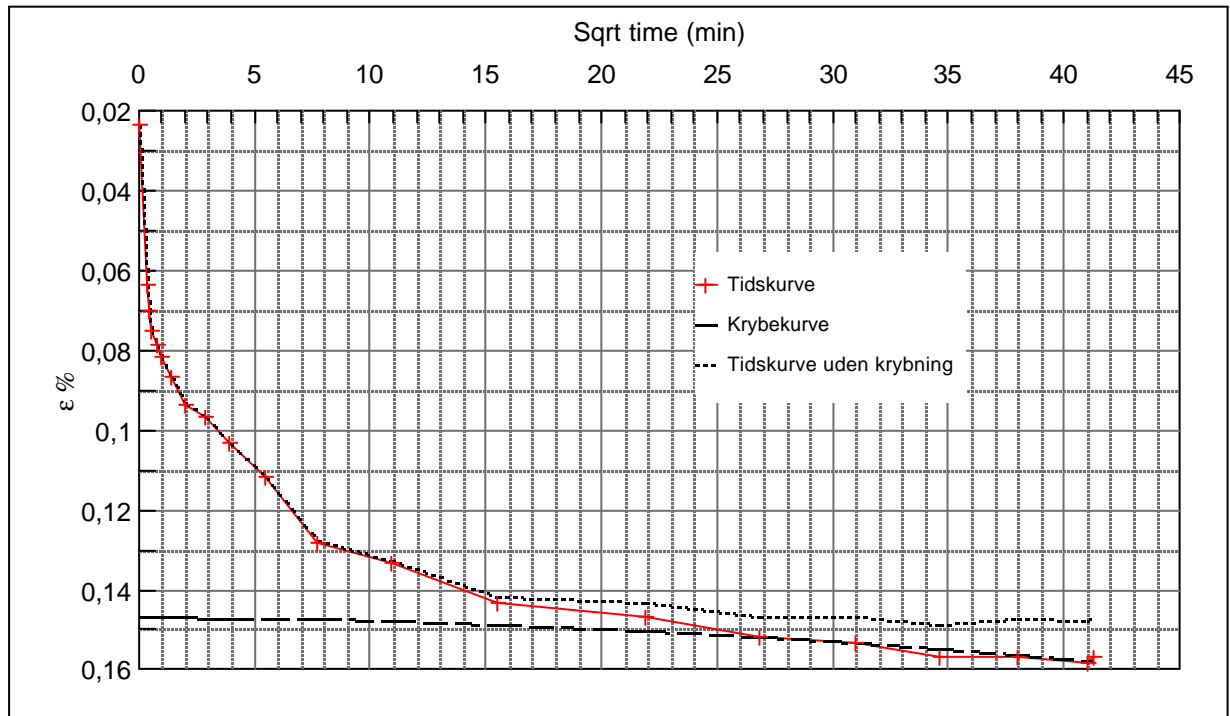
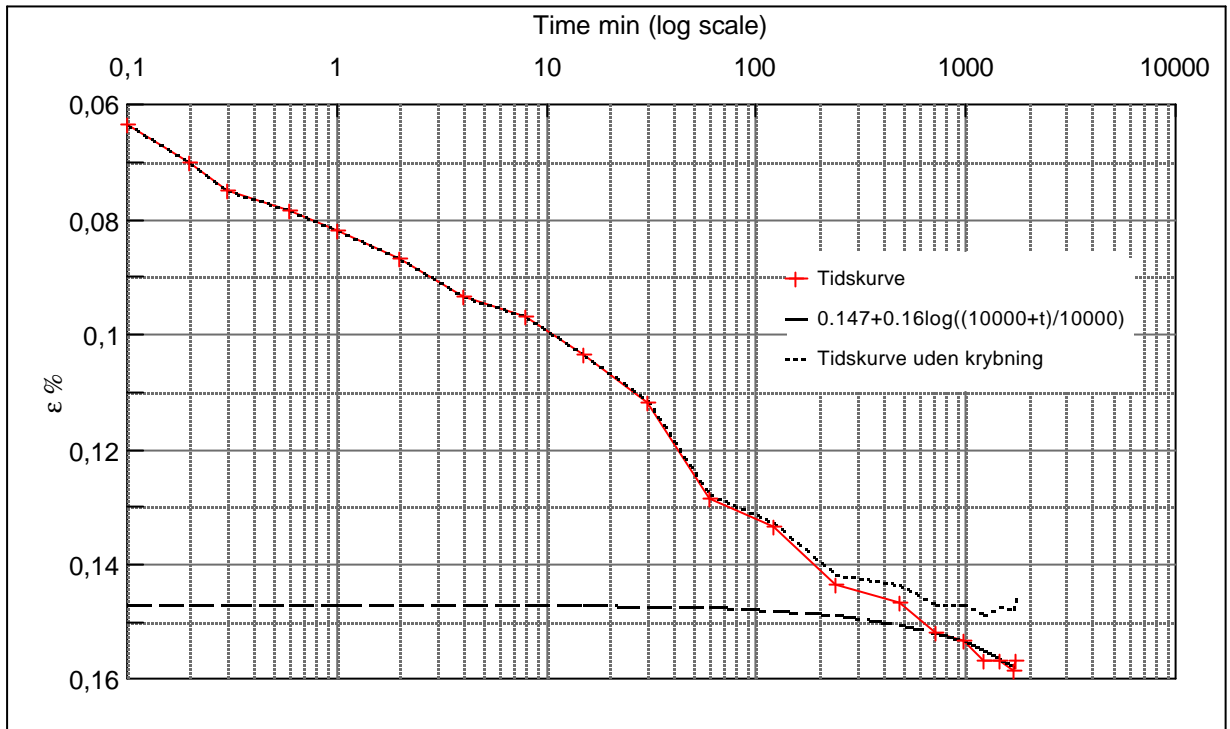
Step no 1	σ	kPa	ϵ	%	ϵ_i	tc in sec	9,6
	Before	2,4	ϵ_0	0,00	ϵ_c %	K i kPa	39.427
	After	11,1	$\epsilon_{\sim\#}$	0,02	ϵ_s	k10 m/sec	2,5E-08
					ϵ_{kryb}	ck10 m^2 /sec	1,01E-04



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.3
Executed: AMS/gt	Check:
Approved:	

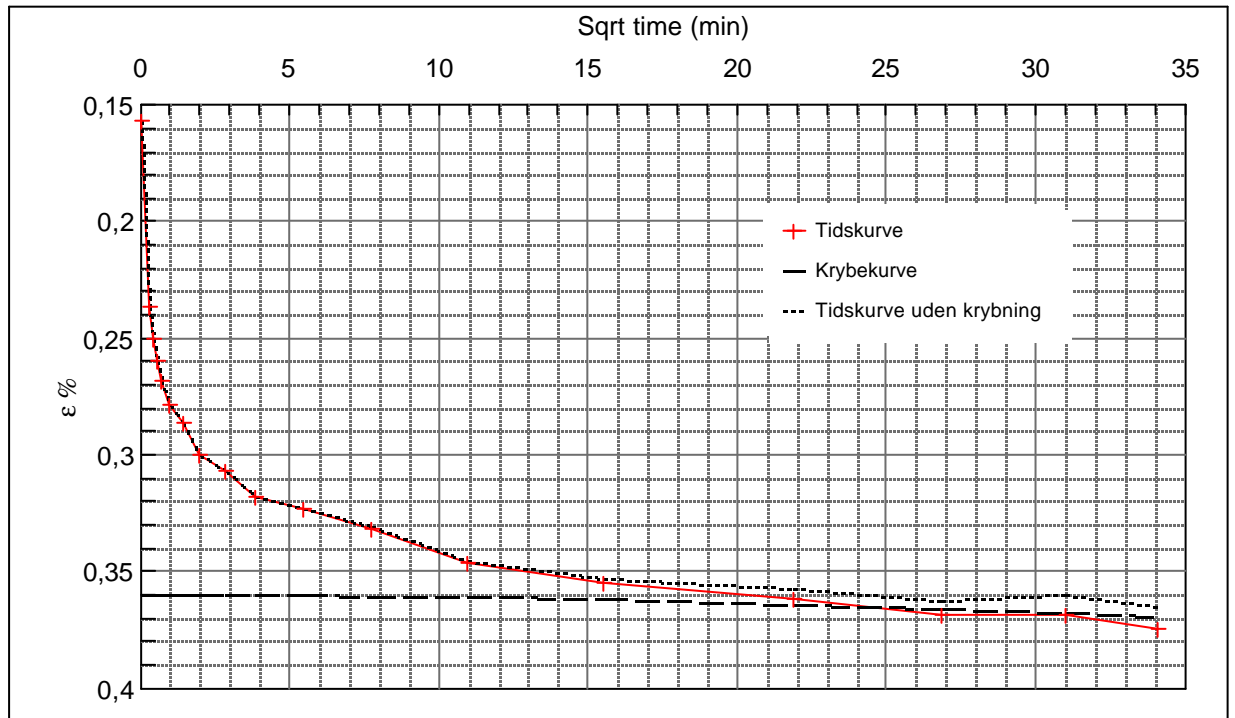
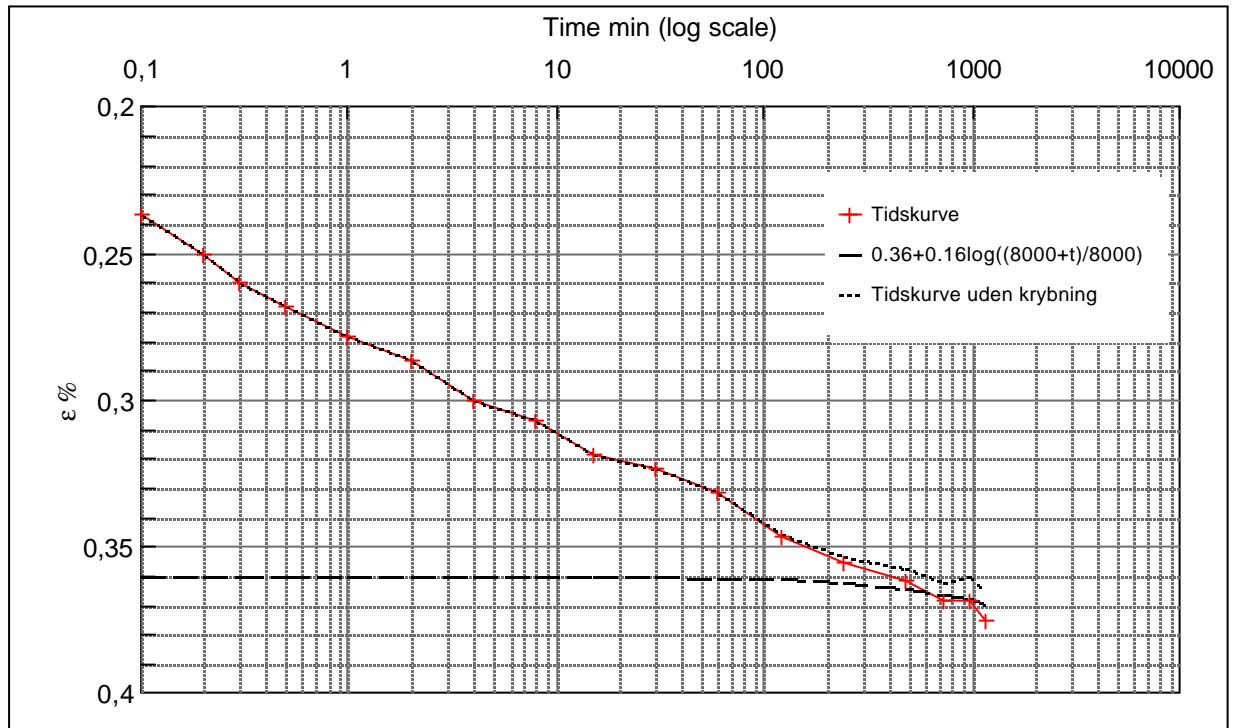
Step no 2	σ	kPa	ε	%	ε_i	tc in sec	60
	Before	11,1	ε_0	0,02	ε_c %	K i kPa	7.014
	After	19,8	$\varepsilon_{\sim\#}$	0,16	ε_s	k10 m/sec	2,3E-08
					ε_{kryb}	ck10 m^2/sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.4
Executed: AMS/gt	Check:
Approved:	

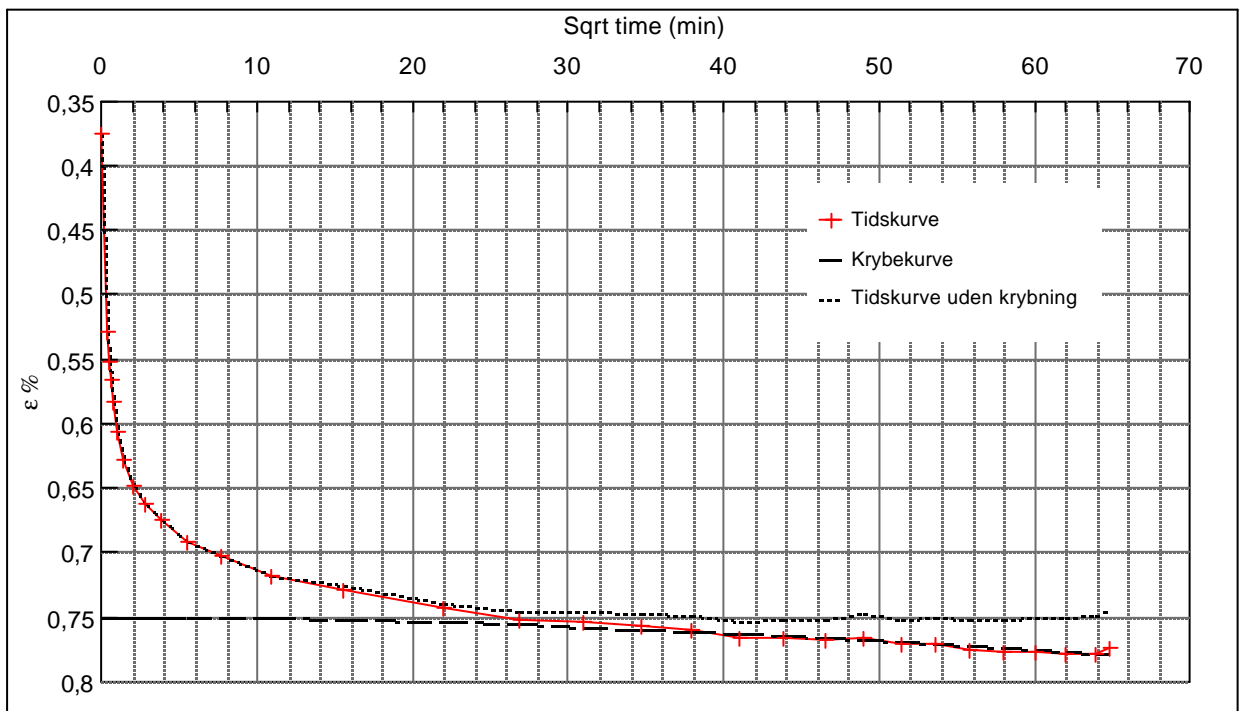
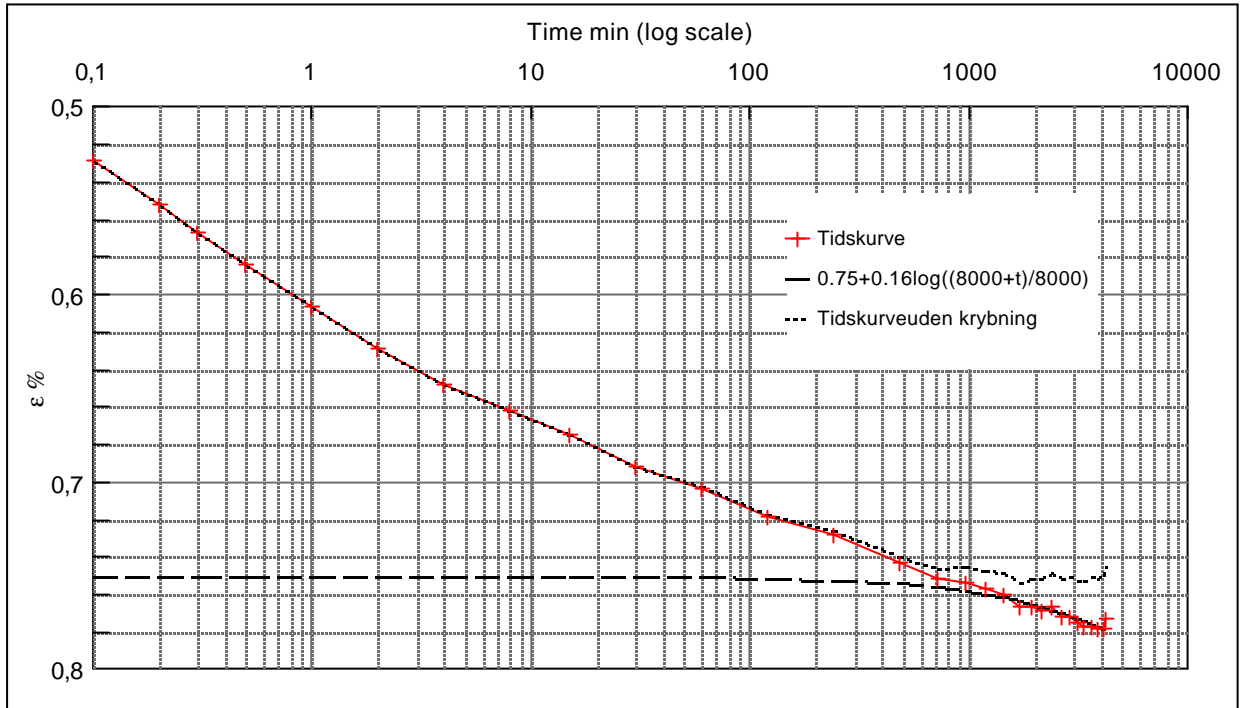
Step no 3	σ	kPa	ϵ	%	ϵ_i	tc in sec	60
	Before	19,8	ϵ_0	0,16	ϵ_c %	K i kPa	8.532
	After	37,1	$\epsilon_{\sim\#}$	0,38	ϵ_s	k10 m/sec	1,9E-08
					ϵ_{kryb}	ck10 m ² /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.5
Executed: AMS/gt	Check:
Approved:	

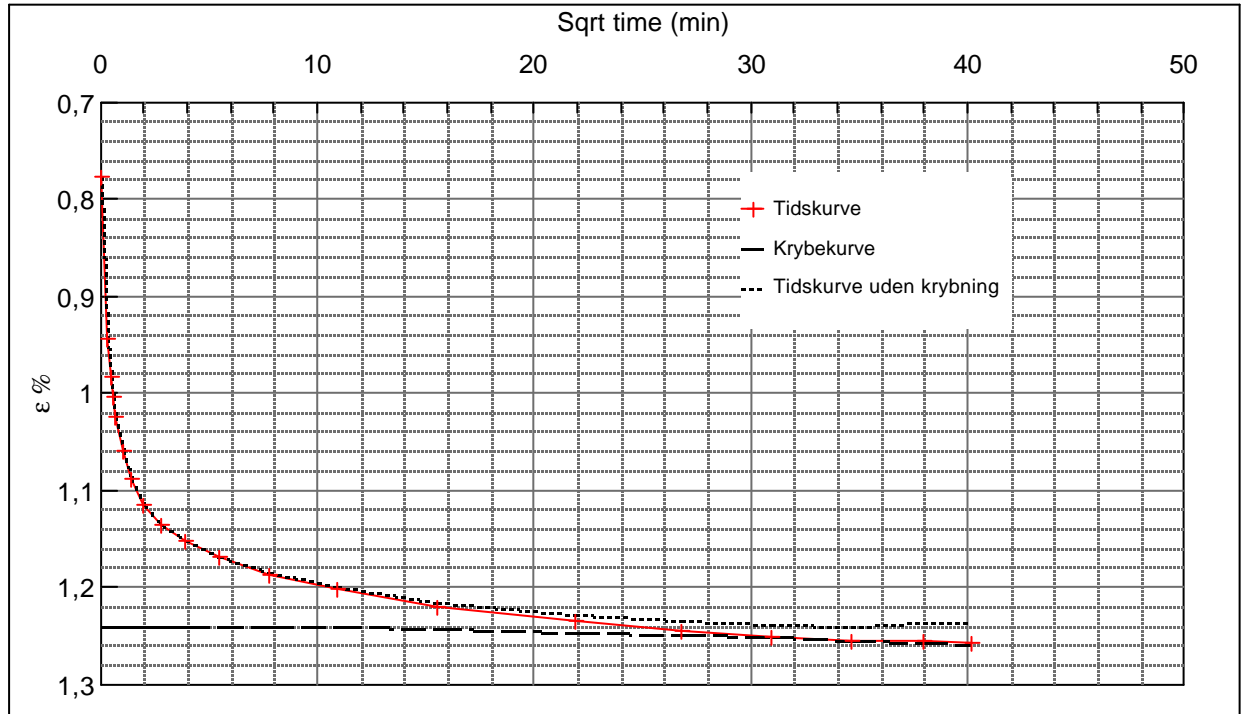
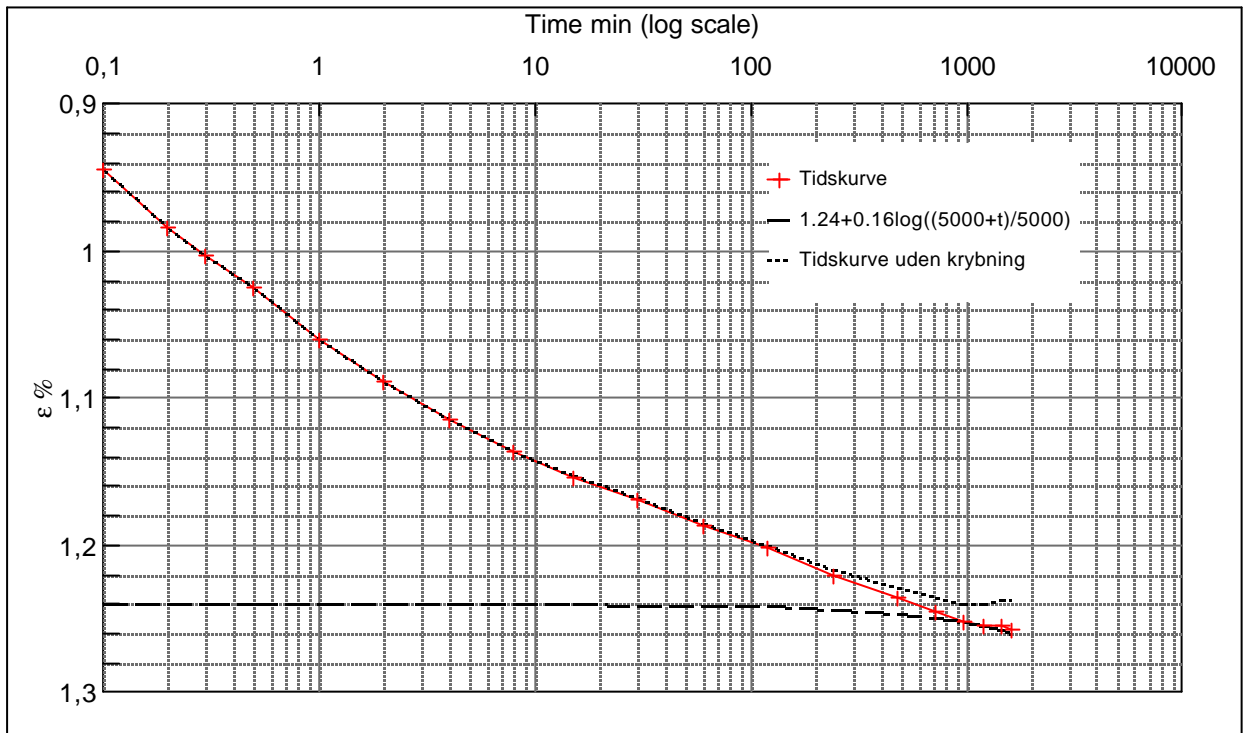
Step no 4	σ	kPa	ε	%	ε_i	tc in sec	60
	Before	37,1	ε_0	0,37	ε_c %	K i kPa	9.252
	After	71,8	$\varepsilon_{\sim\#}$	0,77	ε_s	k10 m/sec	1,7E-08
					ε_{kyb}	ck10 m ² /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no :	Depth: 2.2 m.b.s
Lab. no: 380	Insitu stress: ~30 kPa

Job:	AAU
Nr. Lyngby	Encl. No 4.6
Executed: AMS/gt	Check:
Approved:	

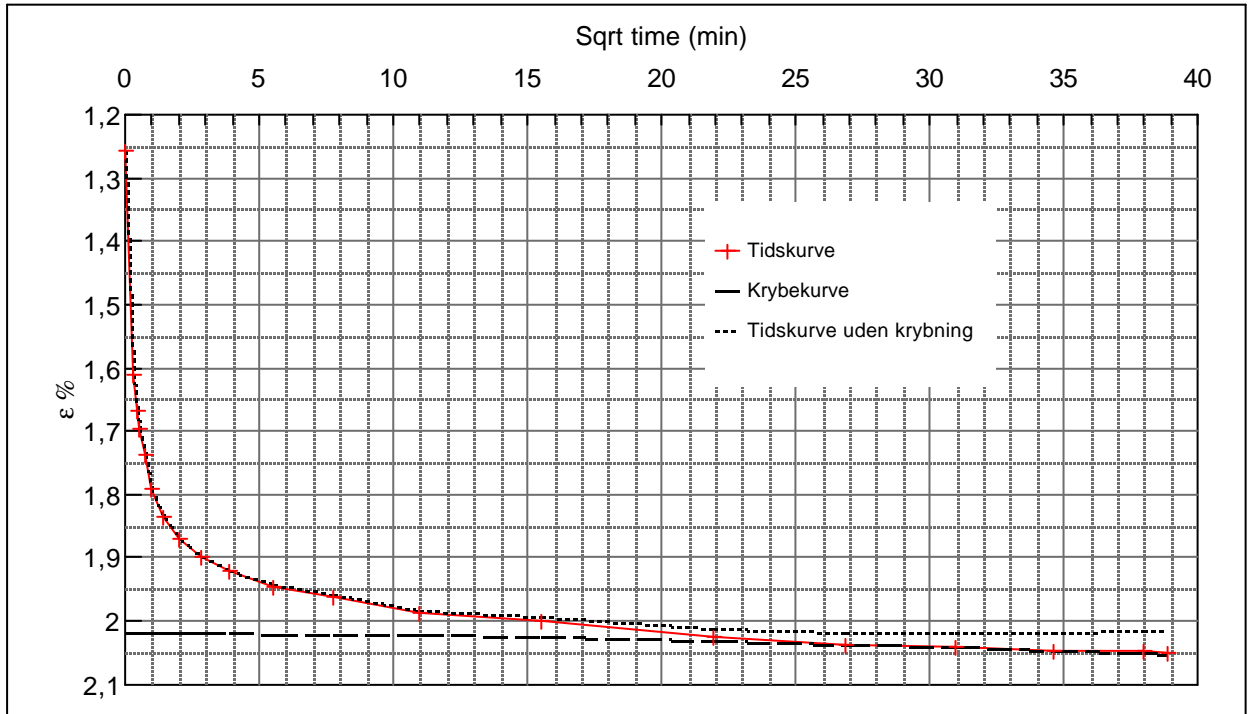
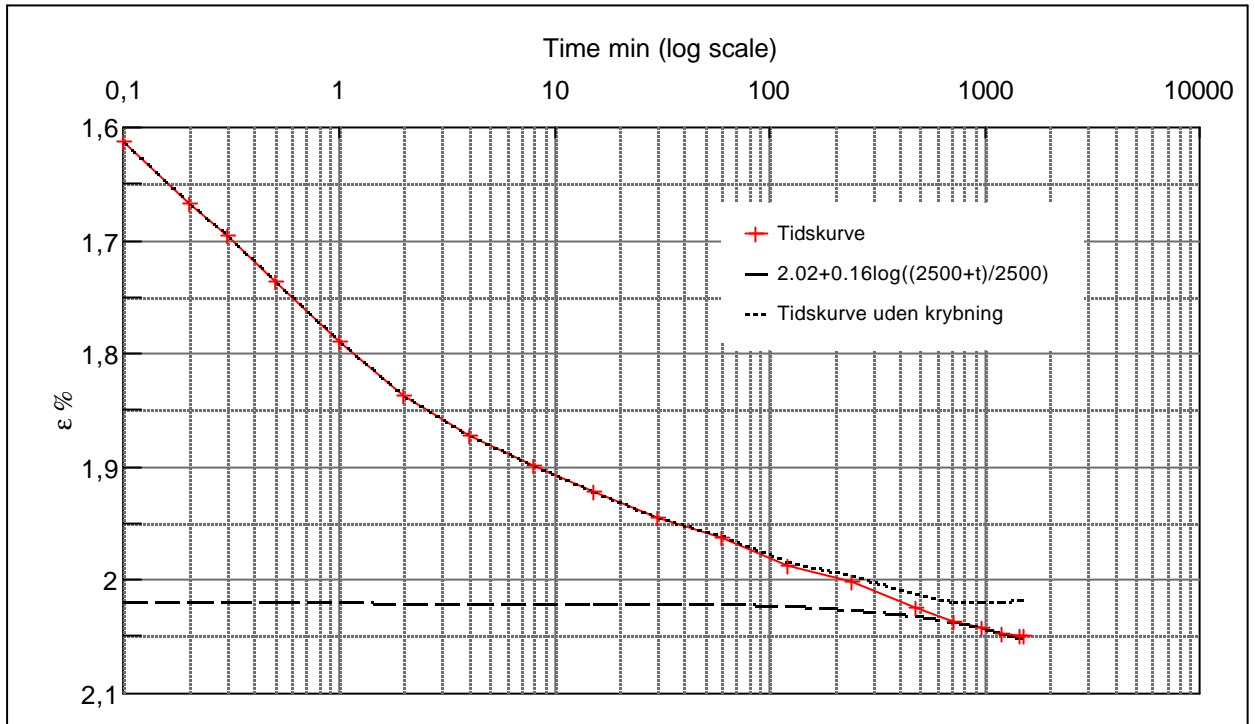
Step no 5	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	71,8	ϵ_0	0,78	ϵ_c %	1,24	K i kPa	14.977
	After	141,2	$\epsilon_{\sim\#}$	1,26	ϵ_s	0,06	k10 m/sec	1,1E-08
					ϵ_{kryb}	0,02	ck10 m ² /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.7
Executed: AMS/gt	Check:
Approved:	

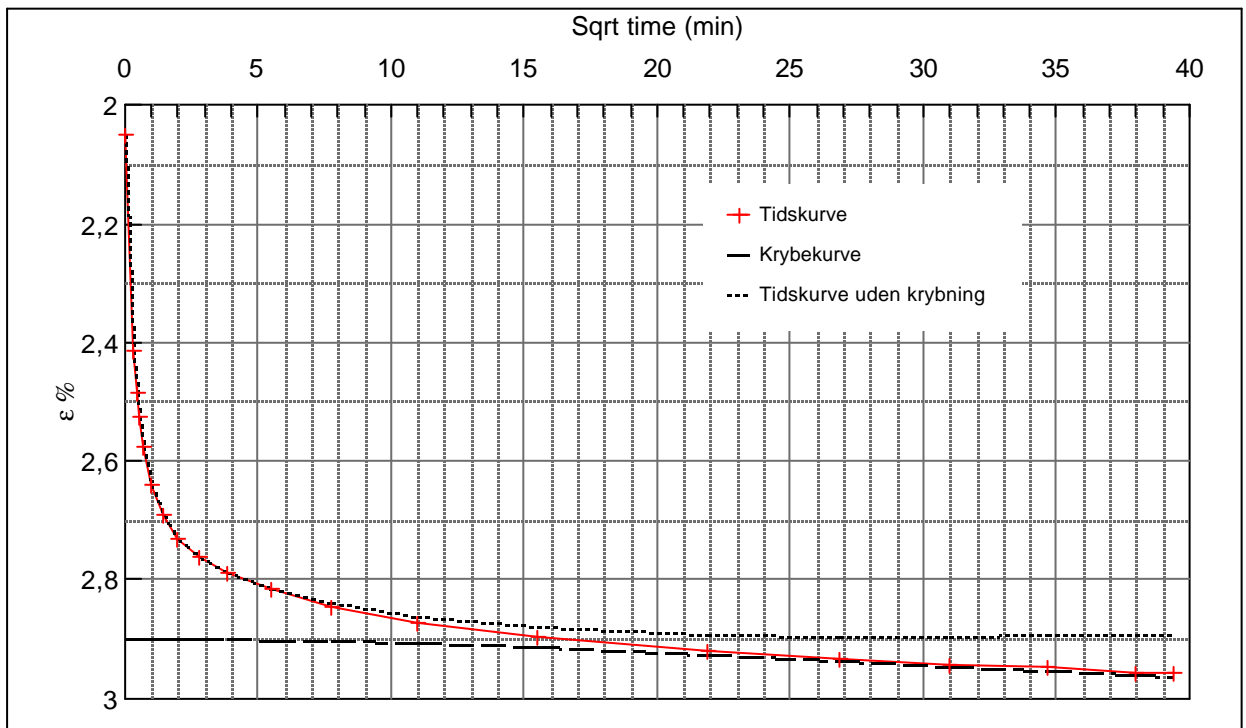
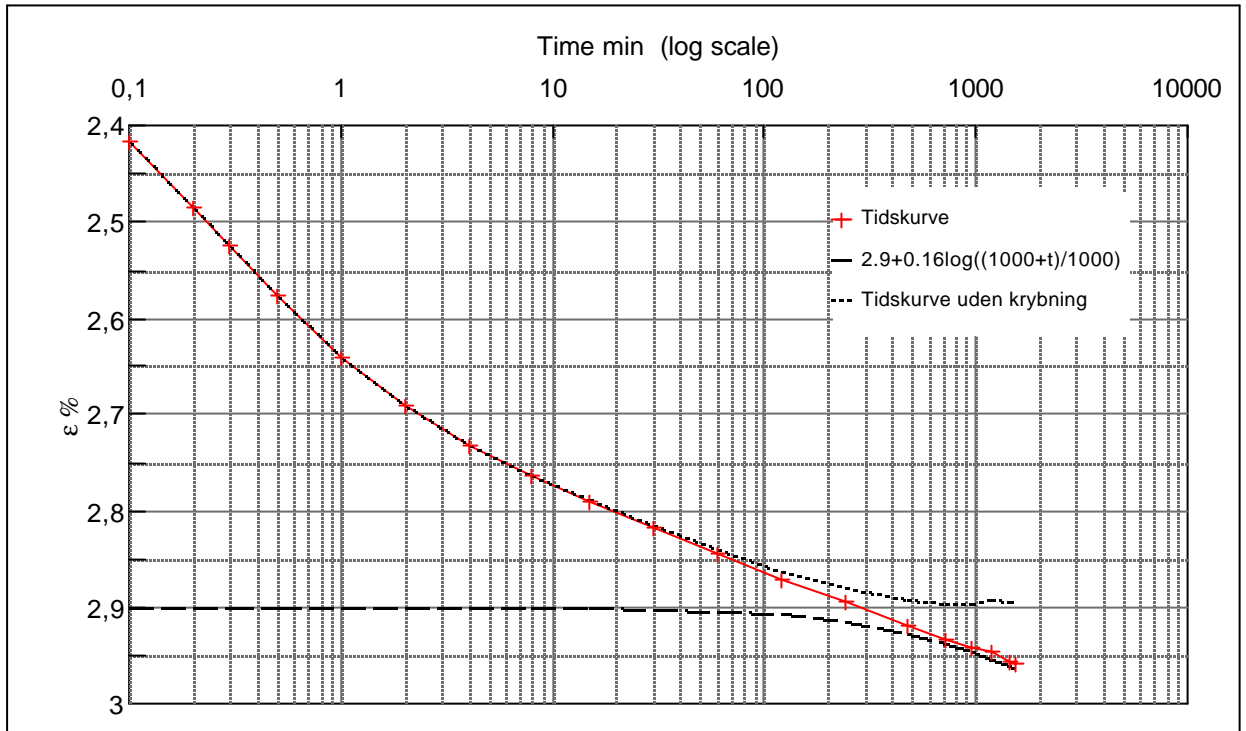
Step no 6	σ	kPa	ε	%	ε_i		tc in sec	38,4
	Before	141,2	ε_0	1,26	ε_c %	2,02	K i kPa	22,726
	After	314,7	$\varepsilon_{\sim\#}$	2,05	ε_s	0,07	k10 m/sec	1,1E-08
					ε_{kryb}	0,03	ck10 m ² /sec	2,53E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.8
Executed: AMS/gt	Check:
Approved:	

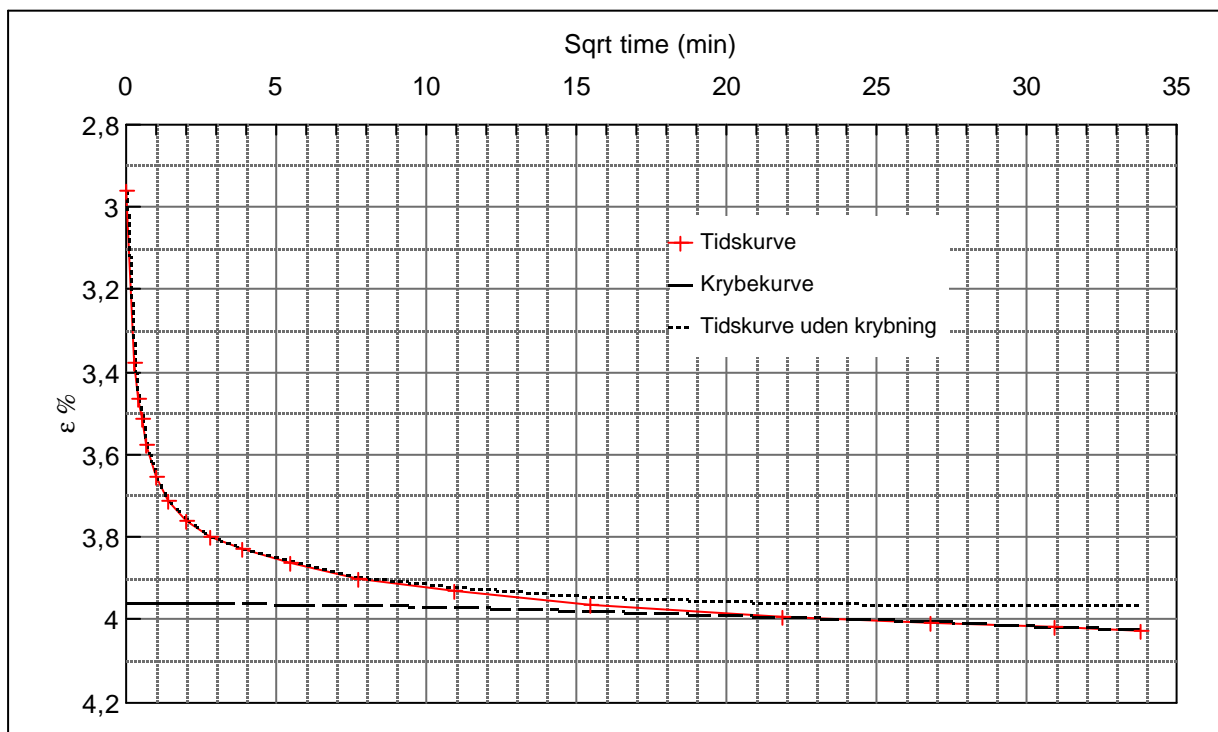
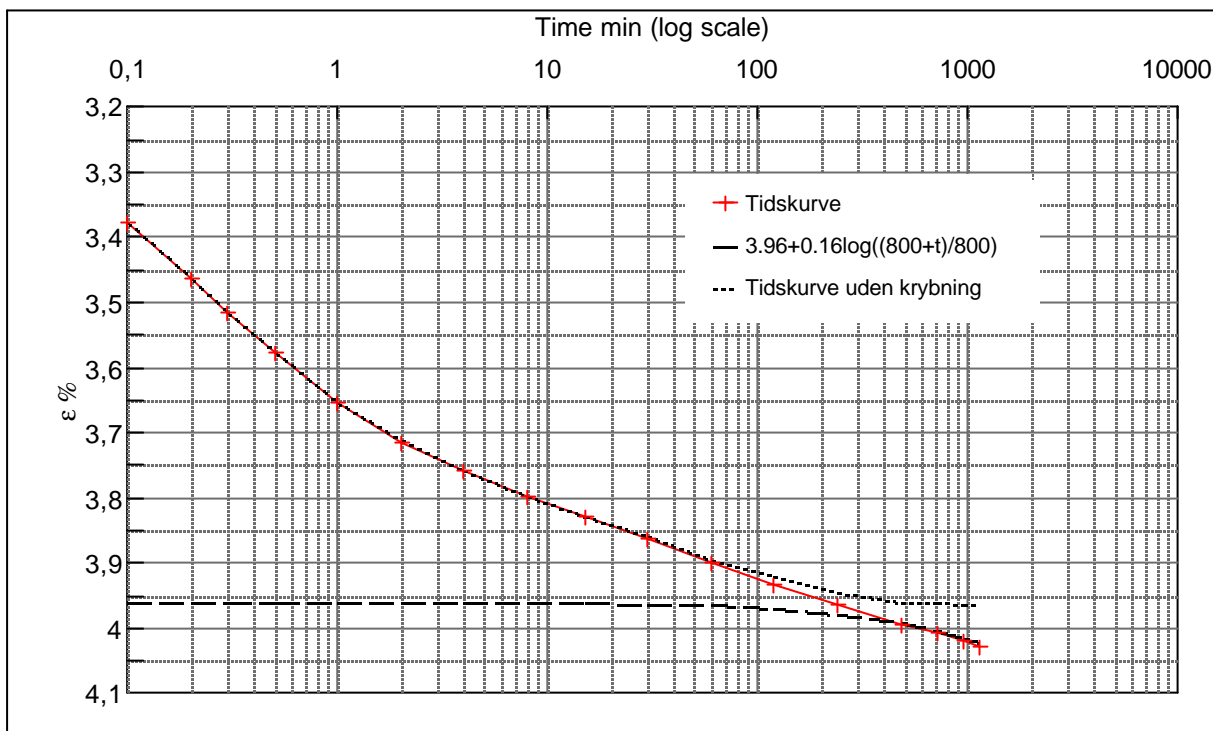
Step no 7	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	314,7	ϵ_0	2,05	ϵ_c %	2,9	K i kPa	40.819
	After	661,6	$\epsilon_{\sim\#}$	2,96	ϵ_s	0,08	k10 m/sec	3,9E-09
					ϵ_{kryb}	0,06	ck10 m ² /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.9
Executed: AMS/gt	Check:
Approved:	

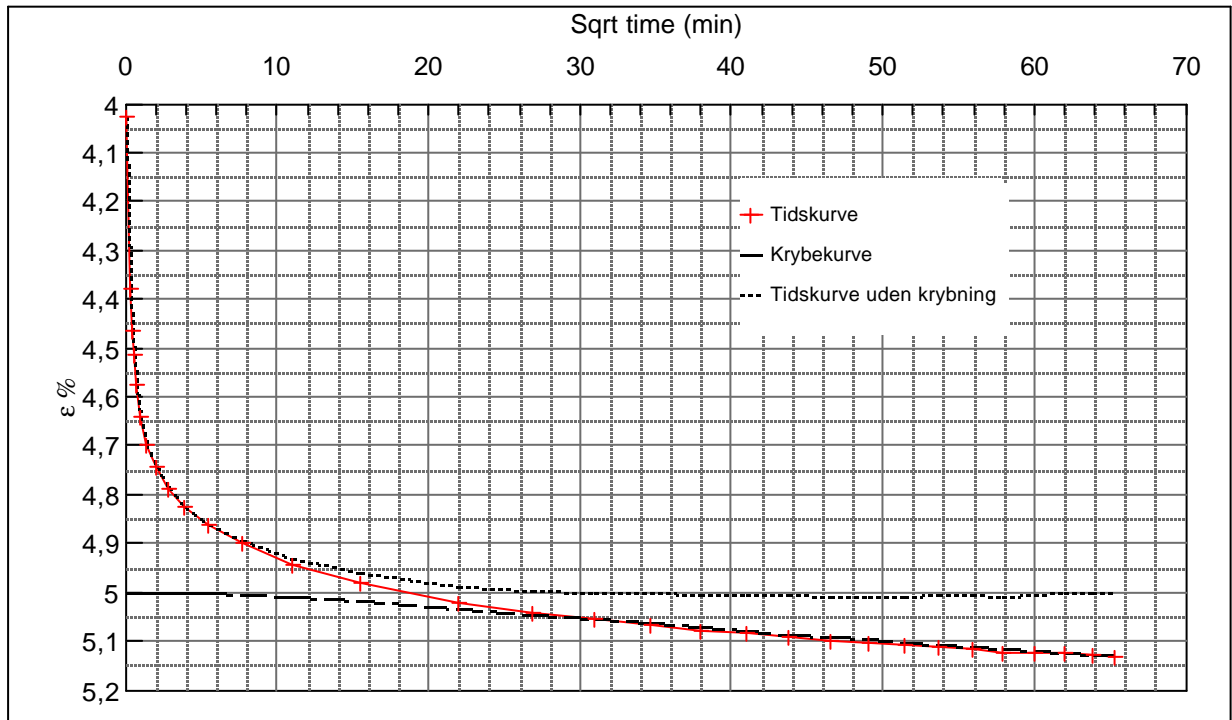
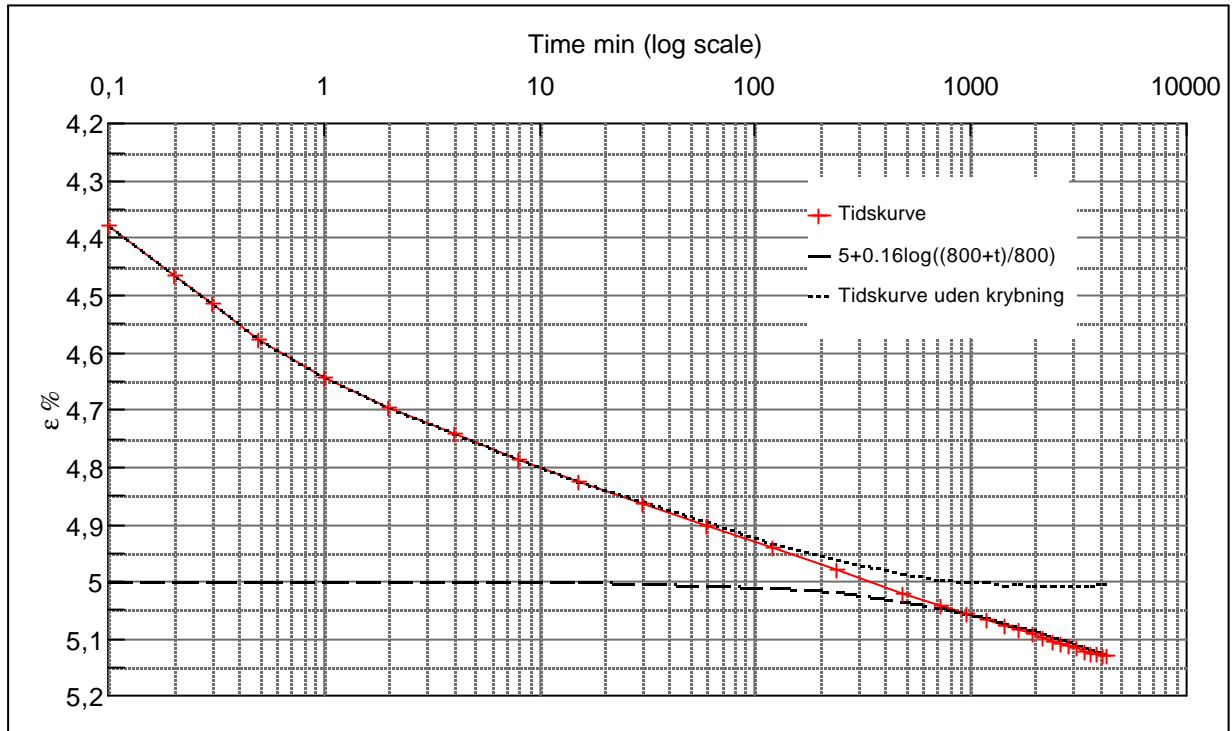
Step no 8	σ	kPa	ε	%	ε_i	tc in sec	60
	Before	661,6	ε_0	2,96	ε_c %	K i kPa	69.392
	After	1.355,6	$\varepsilon_{-#}$	4,03	ε_s	k m/sec	2,3E-09
					ε_{kryb}	ck m^2/sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 4.10
Approved:		Check:

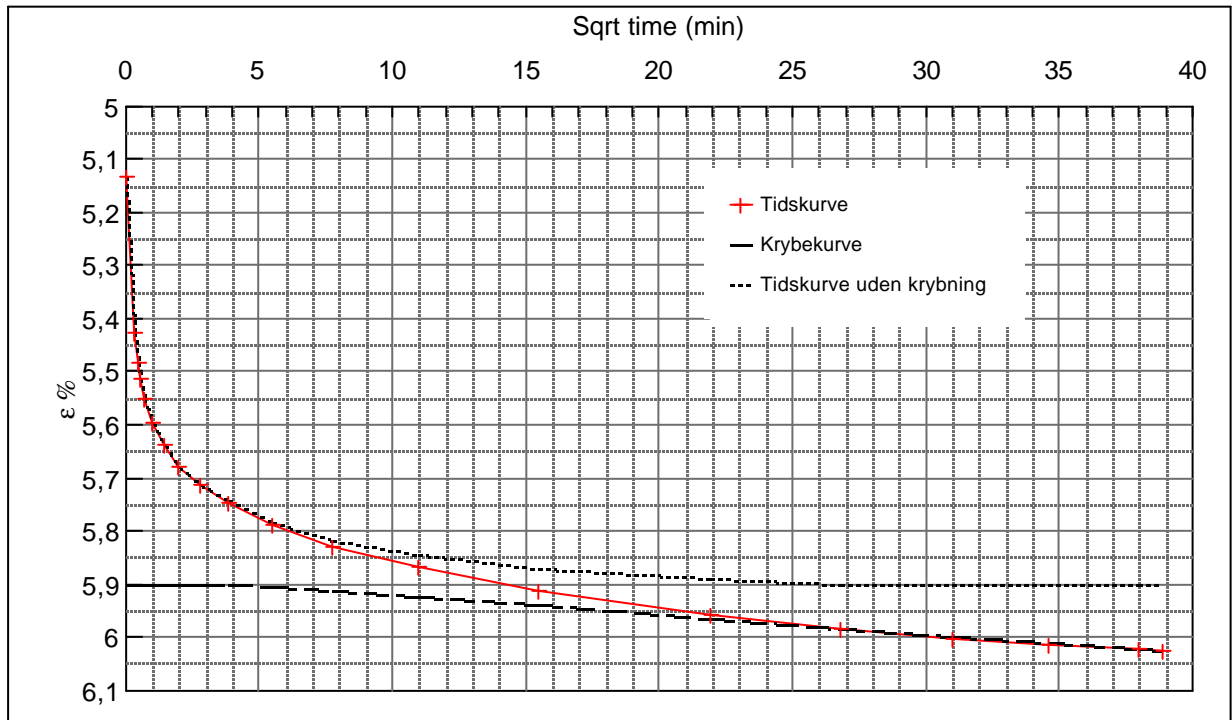
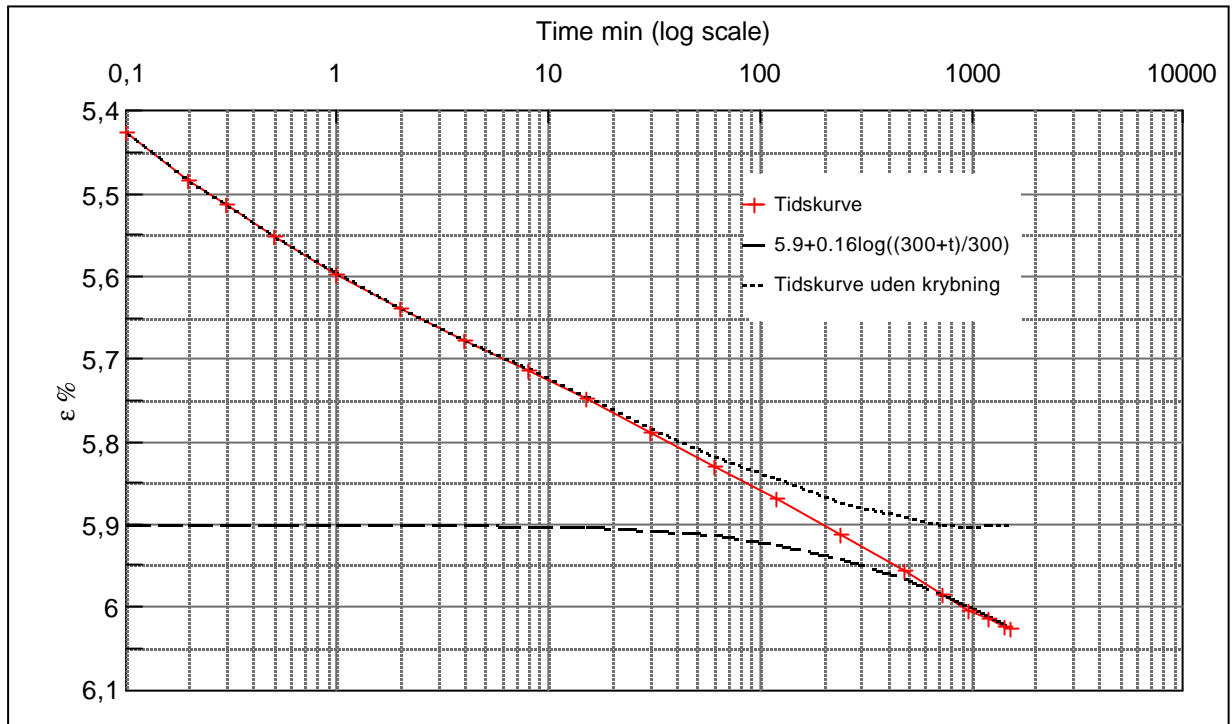
Step no 9	σ	kPa	ϵ	%	ϵ_i	tc in sec	60
	Before	1.355,6	ϵ_0	4,03	ϵ_c %	K i kPa	107.122
	After	2.396,4	$\epsilon_{\sim\#}$	5,23	ϵ_s	k10 m/sec	1,5E-09
					ϵ_{kryb}	ck10 m ² /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.11
Executed: AMS/gt	Check:
Approved:	

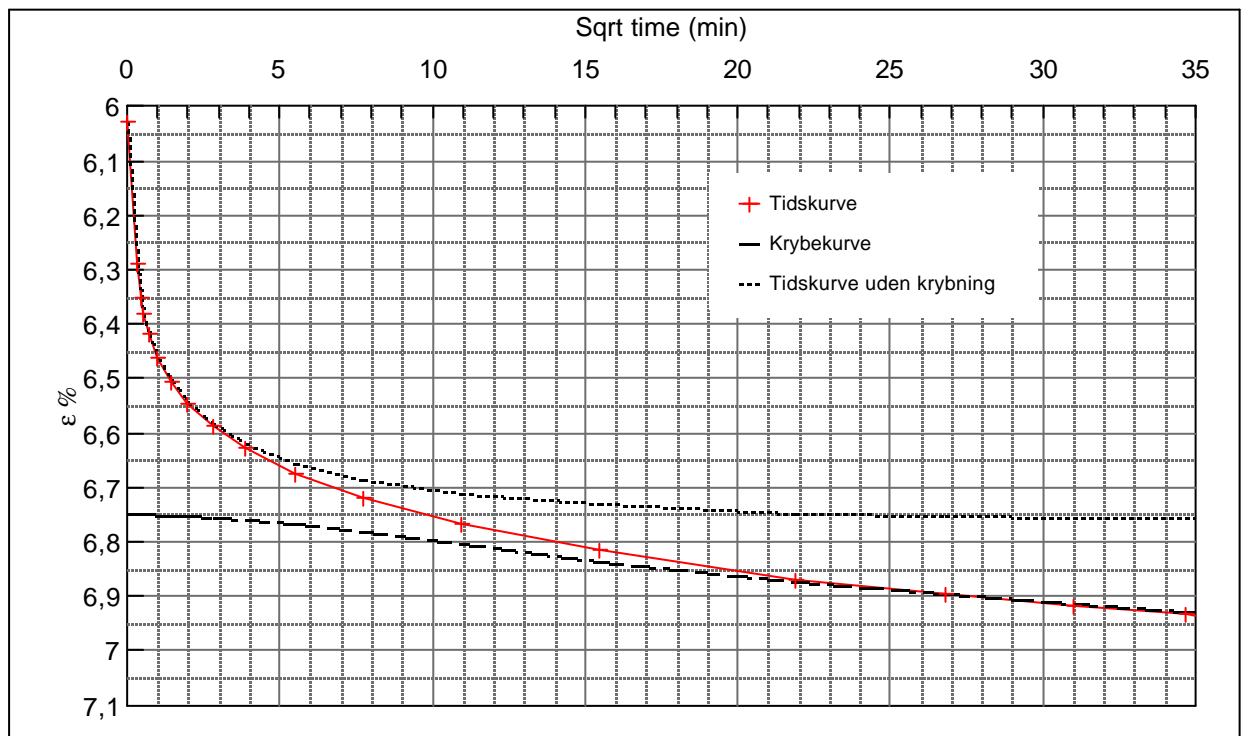
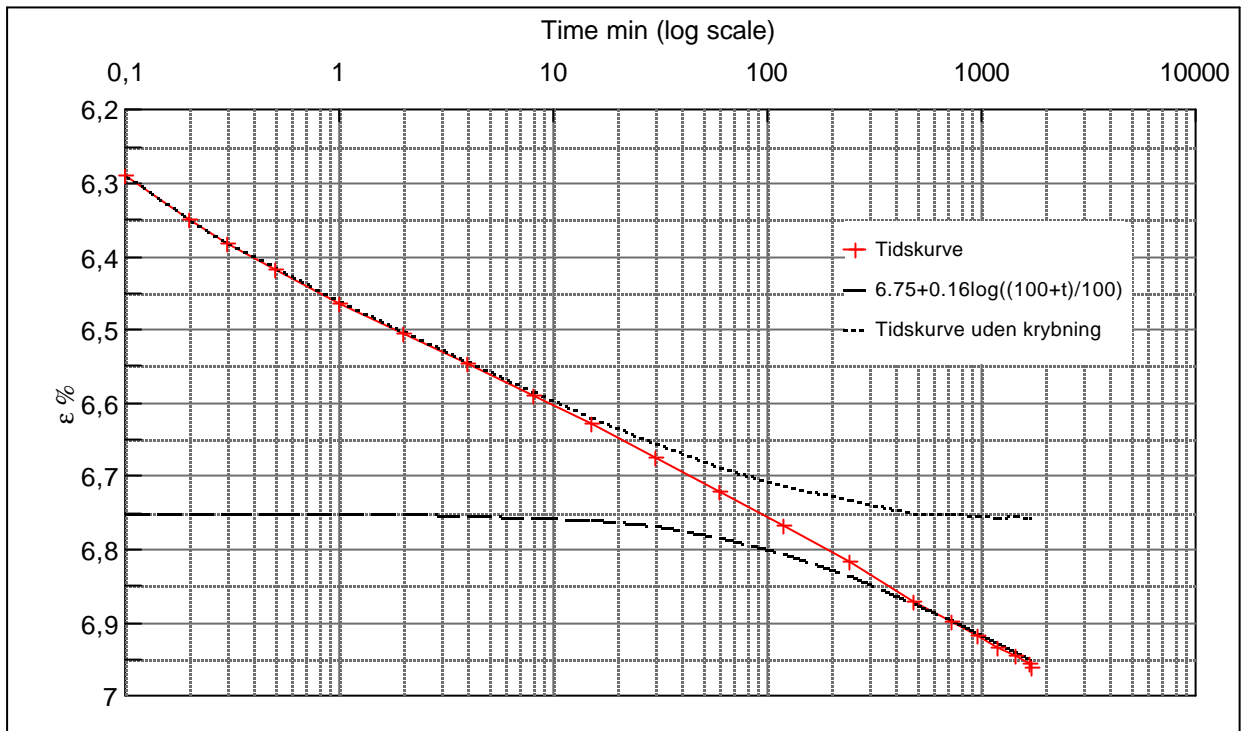
Step no 10	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	2.396,4	ε_0	5,13	ε_c %	5,9	K i kPa	180.629
	After	3.784,3	$\varepsilon_{\sim\#}$	6,03	ε_s	0,15	k10 m/sec	8,8E-10
					ε_{kryb}	0,13	ck10 m^2 /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.12
Executed: AMS/gt	Check:
Approved:	

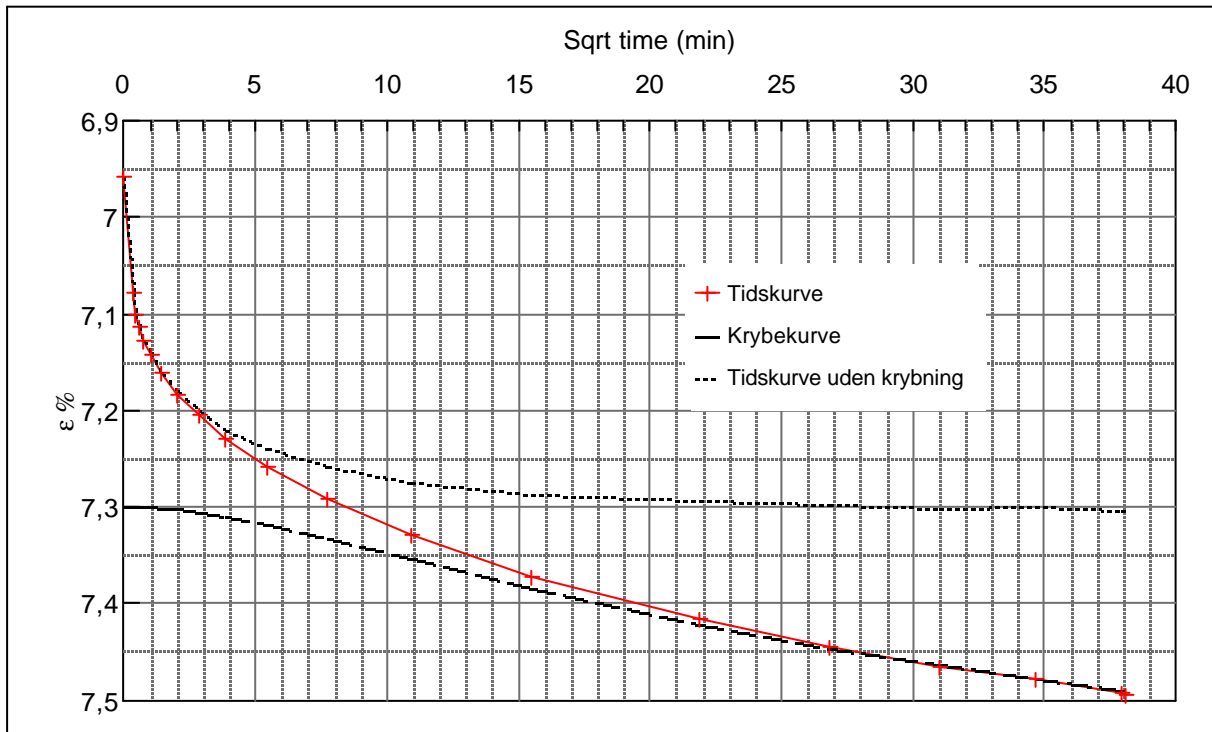
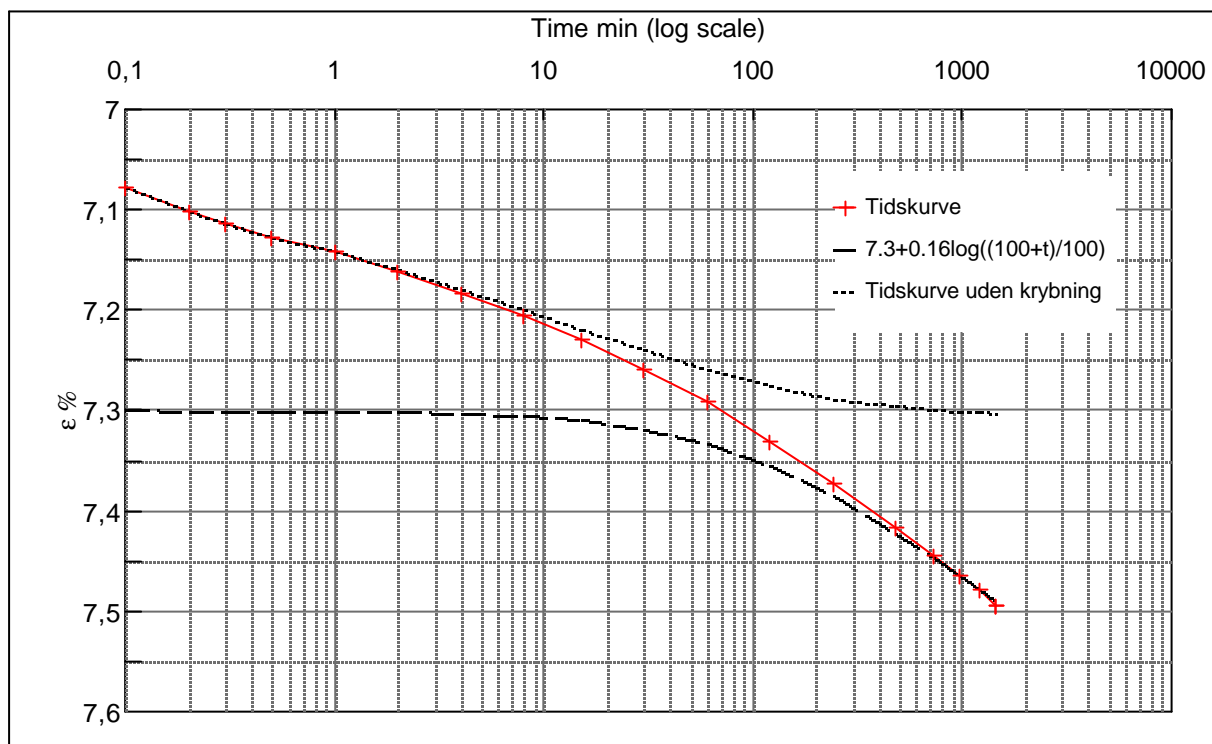
Step no 11	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	3.784,3	ϵ_0	6,03	ϵ_c %	6,75	K i kPa	239.833
	After	5.519,1	$\epsilon_{\sim\#}$	6,96	ϵ_s	0,16	k10 m/sec	6,6E-10
					ϵ_{kryb}	0,21	ck10 m ² /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.13
Executed: AMS/gt	Check:
Approved:	

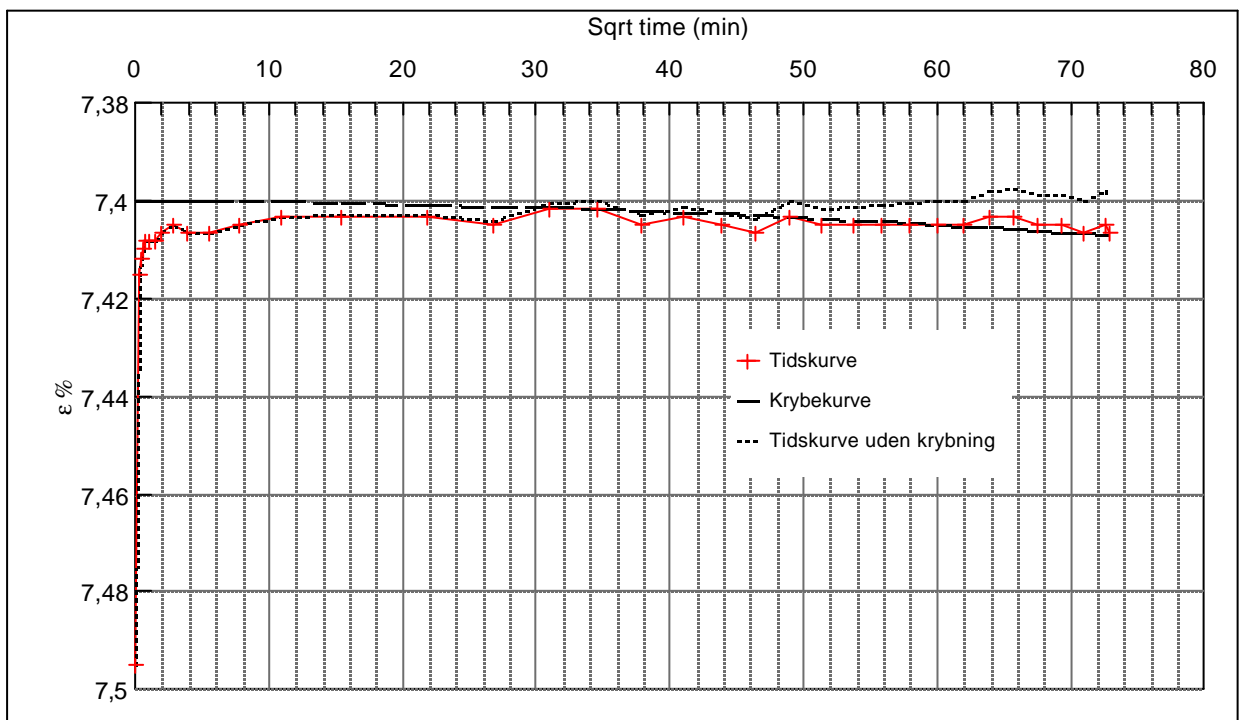
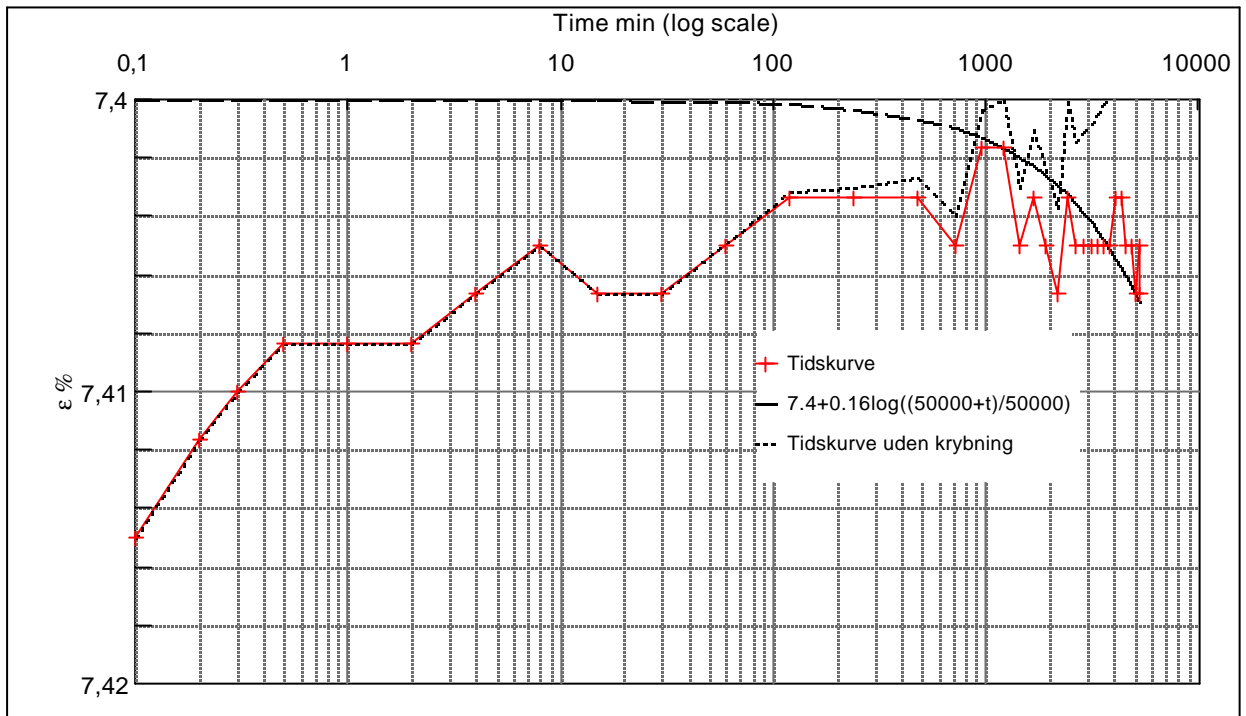
Step no 12	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	5.519,1	ε_0	6,96	ε_c %	7,3	K i kPa	406.194
	After	6.906,9	$\varepsilon_{-#}$	7,50	ε_s	0,16	k10 m/sec	3,9E-10
					ε_{kryb}	0,19	ck10 m ² /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.14
Executed: AMS/gt	Check:
Approved:	

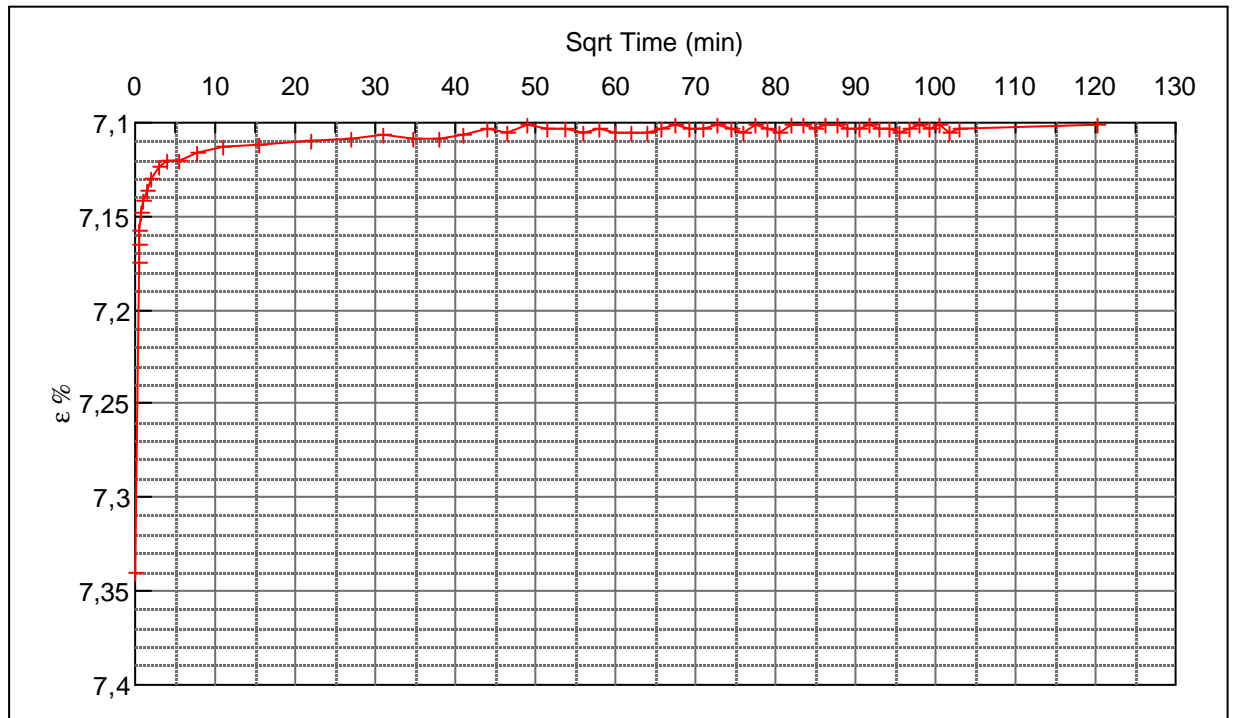
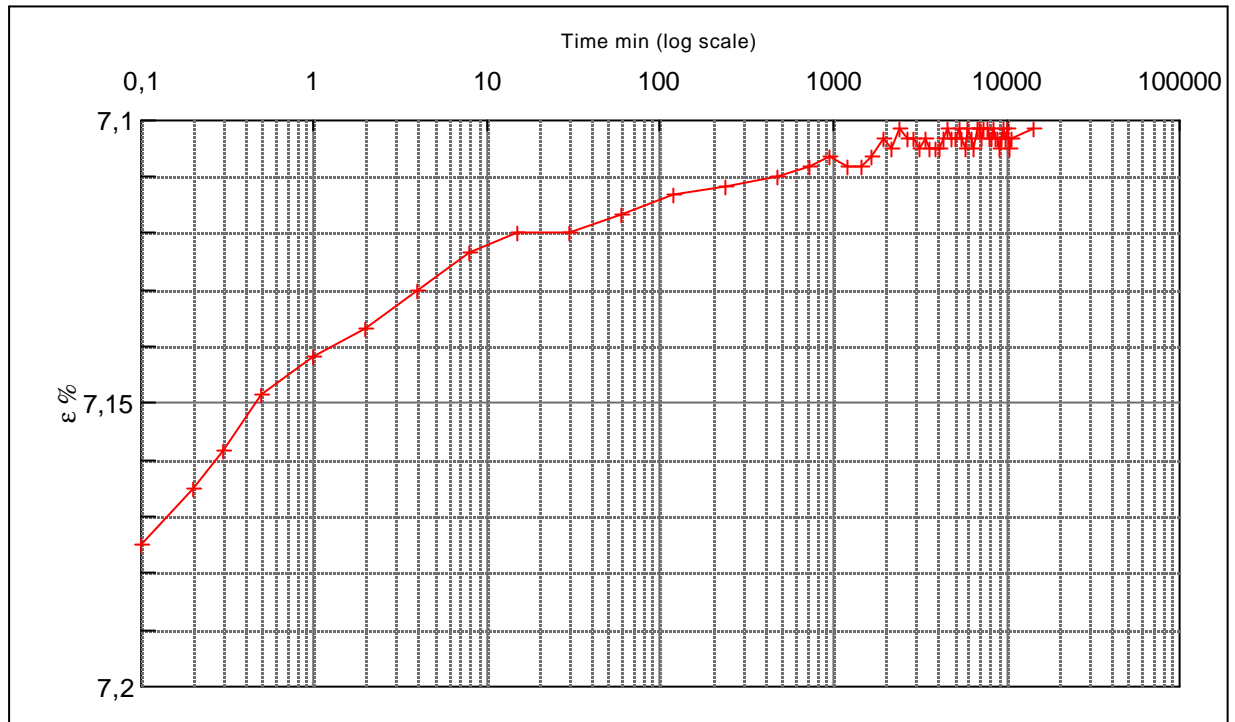
Step no 13	σ	kPa	ε	%	ε_i		t_c in sec	15
	Before	6.906,9	ε_0	7,50	ε_c %	7,4	K i kPa	3.286.968
	After	3.784,3	$\varepsilon_{\sim\#}$	7,41	ε_s	0,003	k10 m/sec	1,9E-10
					ε_{kryb}	0,007	ck10 m ² /sec	6,47E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby		AAU Encl. No 4.15
Executed:	AMS/gt	Check:
Approved:		

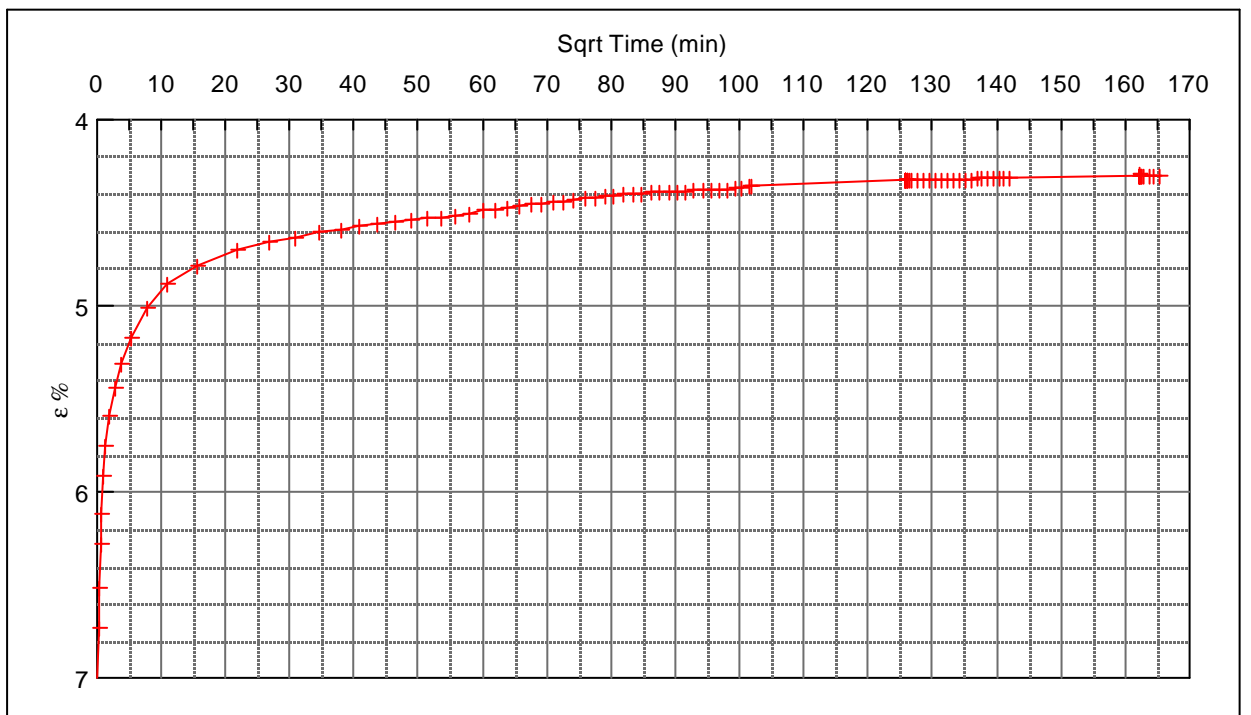
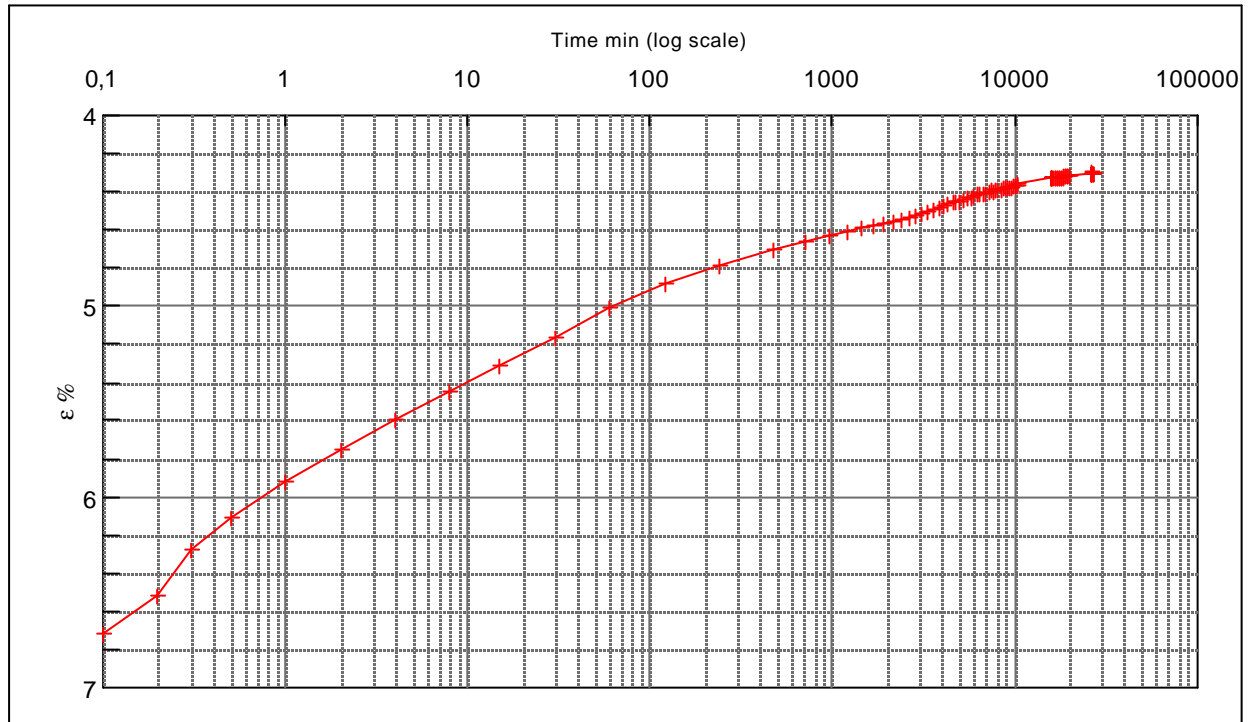
Step no 14	σ	kPa	ϵ	%	ϵ_i	tc in sec	60
	Before	3.784,3	ϵ_0	7,34	ϵ_c %	K i kPa	1.020.464
	After	1.355,6	$\epsilon_{\sim\#}$	7,10	ϵ_s	k10 m/sec	1,6E-10
					ϵ_{kyb}	ck10 m^2 /sec	1,62E-05



Material: Clay, marin. Lateglacial	
Bor no : Lab. no: 380	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.16
Executed: AMS/gt	Check:
Approved:	

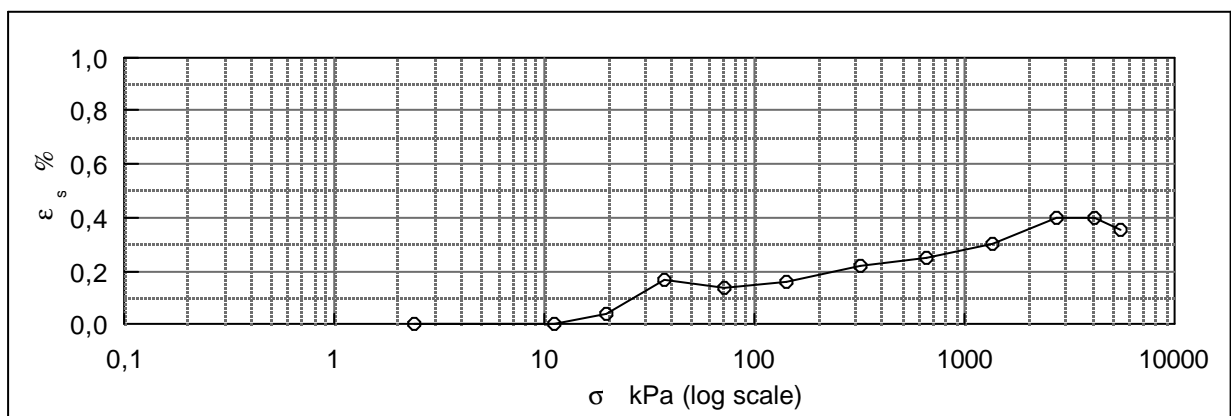
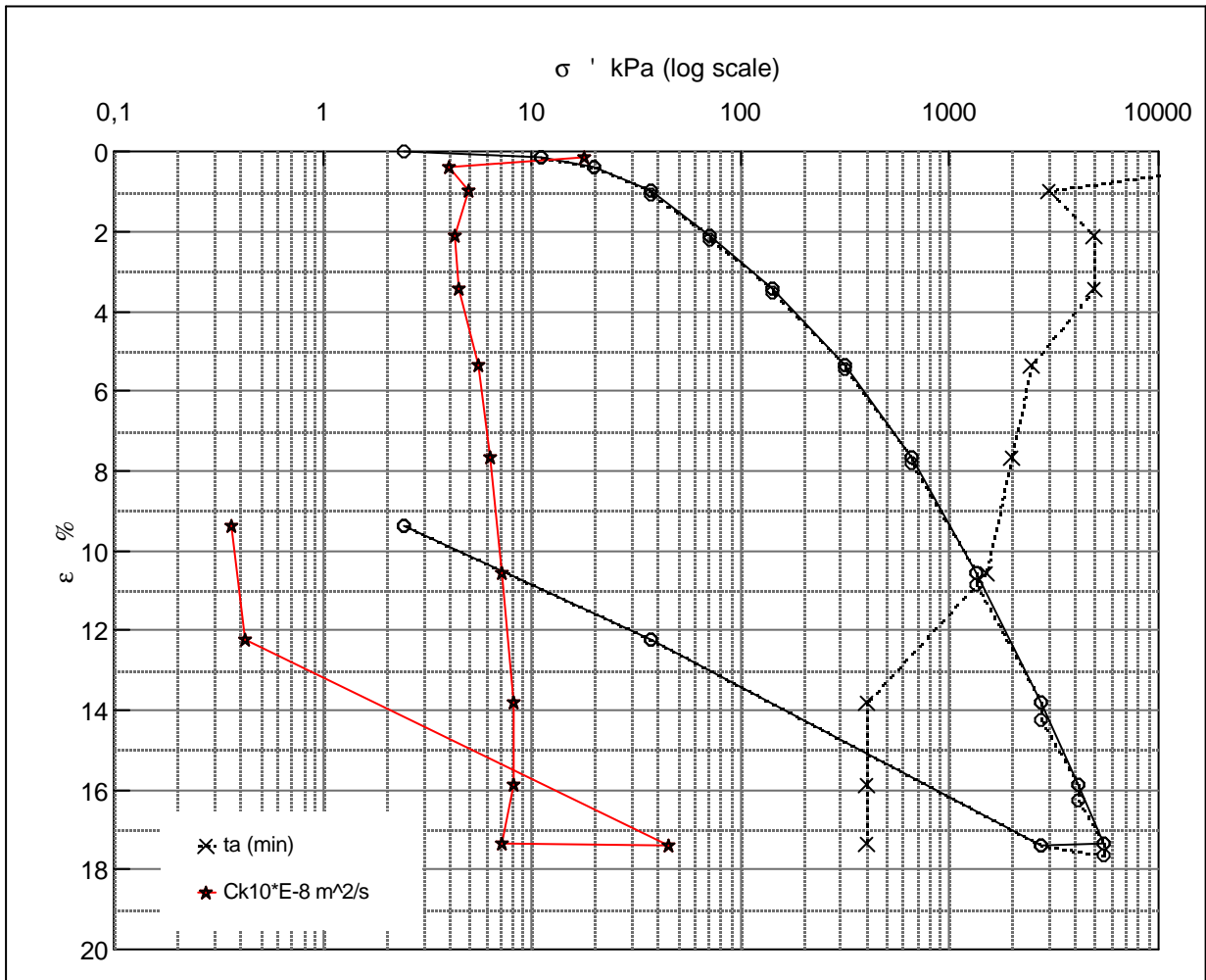
Step no 15	σ	kPa	ε	%	ε_i		tc in sec	540
	Before	1.355,6	ε_0	7,10	ε_c %	4,30	K i kPa	48.361
	After	2,4	$\varepsilon_{\sim\#}$	4,30	ε_s		k10 m/sec	3,6E-10
					ε_{kyb}		ck10 m ² /sec	1,80E-06



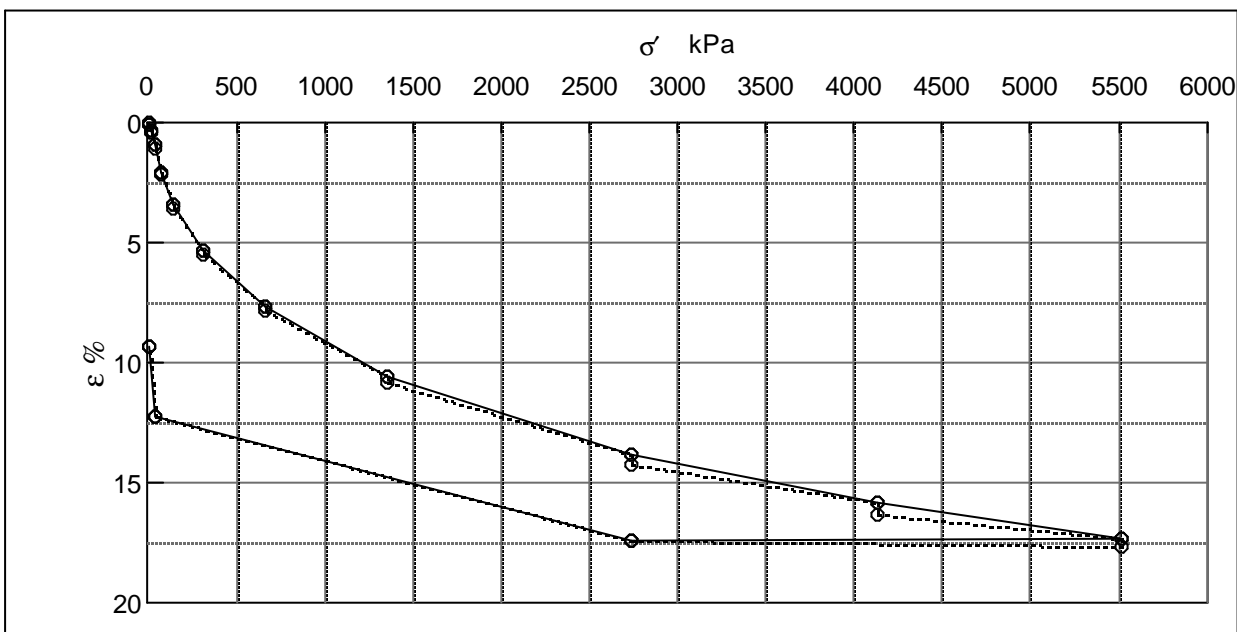
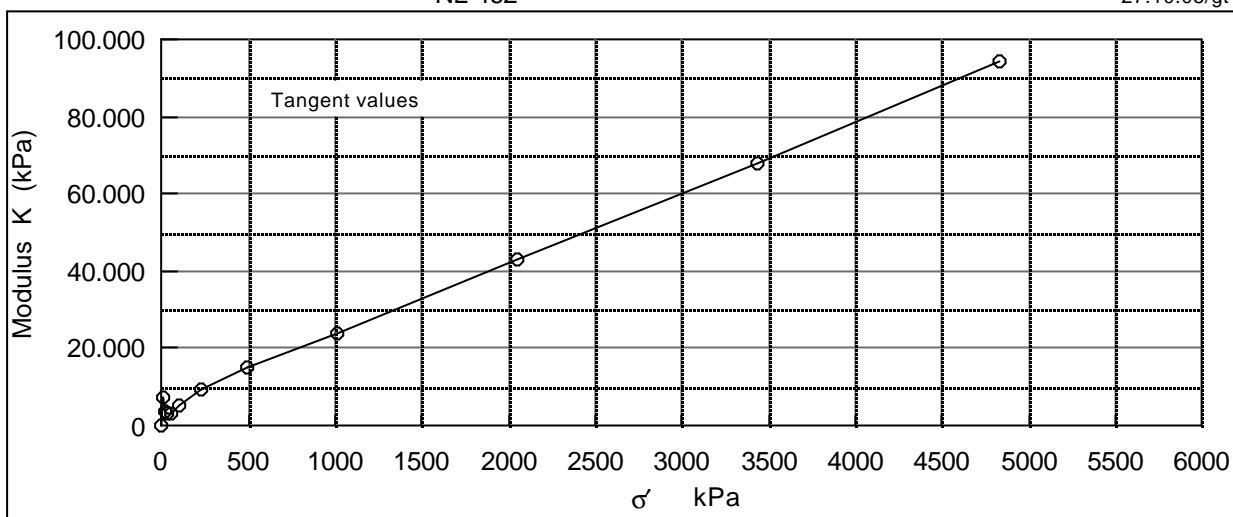
Material: Clay, marin. Lateglacial	
Bor no : Lab. no:	Depth: 2.2 m.b.s Insitu stress: ~30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 4.17
Executed: AMS/gt	Check:
Approved:	

Description of soil: Clay, marine, Lateglacial			Water content %	Before	After
			Bulk density Mg/m ³	28,9	23,4
			Grain density Mg/m ³	1,96	2,04
Bor no :	Overburden pressure σ_o	30 kPa	Void ratio	0,78	0,63
Lab. no: 462	Vane strength c_v	110 kPa	Degr. of Saturation %	100	100
Level : 2.2 m.b.s	CPT - value q_c	MPa	Dimension H x D mm	30x60	27.5x60



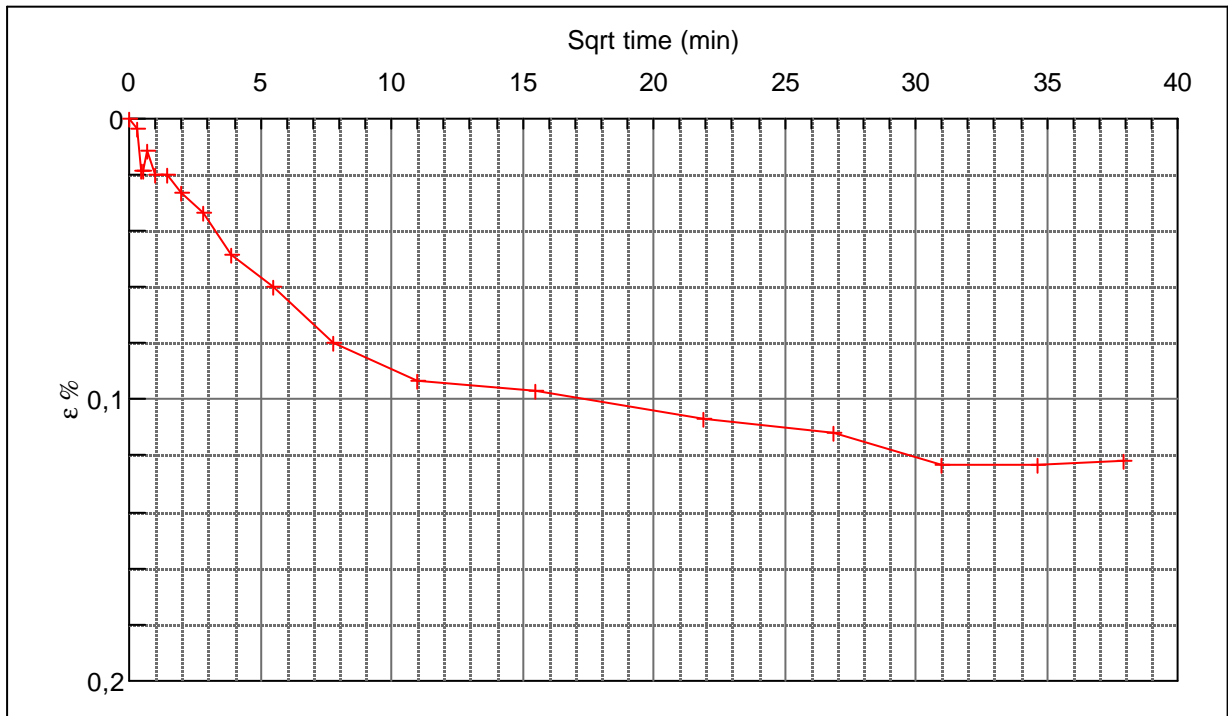
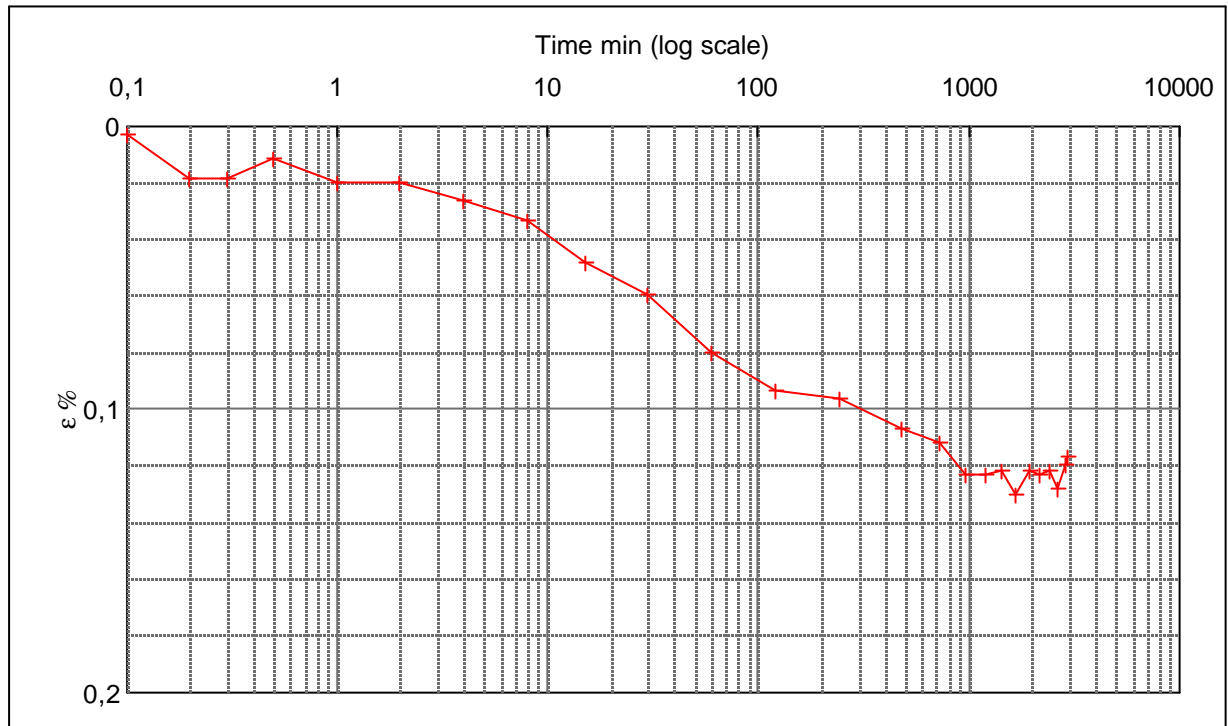
Job: Nr. Lyngby		AAU
		Encl. No 5.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ' kPa	ϵ_c %	ϵ_s % / lct	Ck10 m ² /s	σ'_m kPa	K kPa	w %
Q	12 %	2,4	0,00	-	-	-	-	28,9
Qs	0,4 %	11,1	0,12	0,00	1,8E-07	6,8	7168,5	28,8
σ'_{pc}	?	19,8	0,36	0,04	4,0E-08	15,4	3629,3	28,6
		37,1	0,97	0,17	5,0E-08	28,5	2843,9	28,2
		71,8	2,11	0,14	4,3E-08	54,5	3043,5	27,5
		141,2	3,45	0,16	4,5E-08	106,5	5178,5	26,6
		314,7	5,34	0,22	5,6E-08	228,0	9203,1	25,4
		661,6	7,64	0,25	6,3E-08	488,2	15052,4	23,9
		1.355,6	10,58	0,30	7,2E-08	1.008,6	23602,6	21,9
		2.743,4	13,81	0,40	8,2E-08	2.049,5	42966,9	19,8
		4.131,2	15,85	0,40	8,2E-08	3.437,3	68030,9	18,5
		5.519,1	17,32	0,35	7,2E-08	4.825,1	94410,3	17,5
		2.743,4	17,37		4,5E-07	4.131,2	-6168138,2	17,5
		37,1	12,24		4,2E-09	1.390,3	52784,7	20,8
		2,4	9,37		3,6E-09	19,8	1209,8	22,7

Remark:		Job:	AAU
		Nr. Lyngby	Encl. No 5.2
		Executed: AMS/gt	Check:
		Approved:	

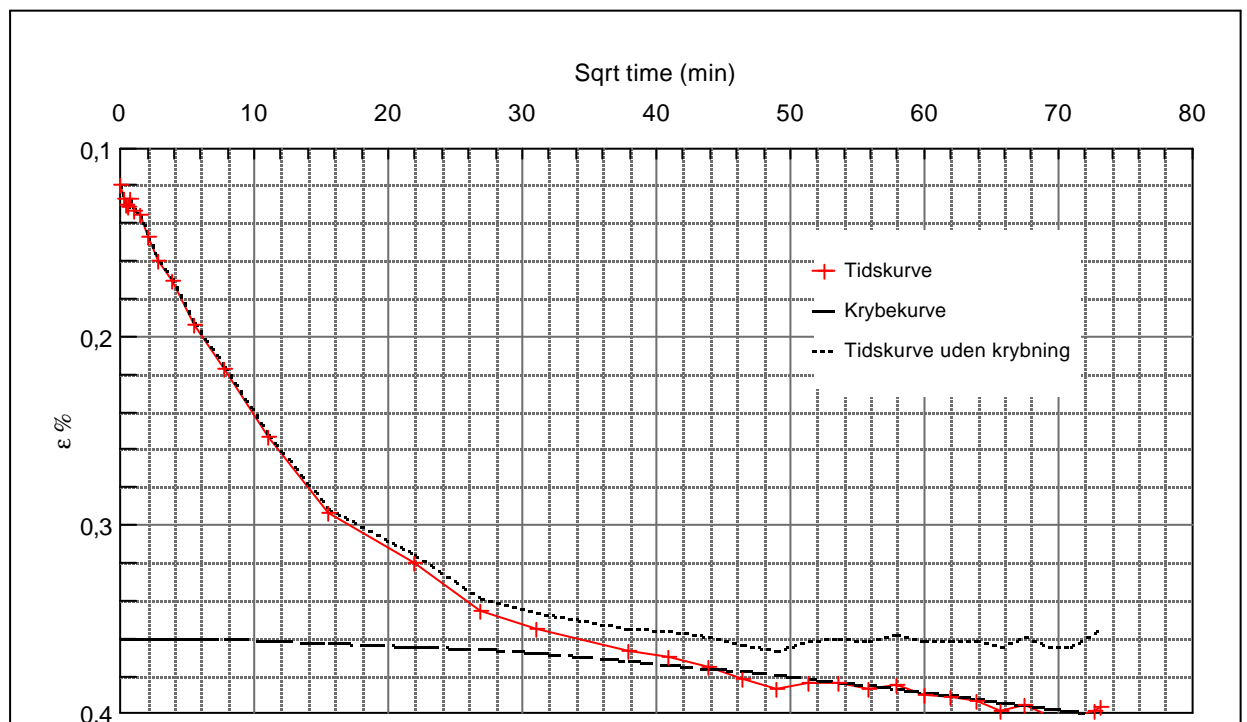
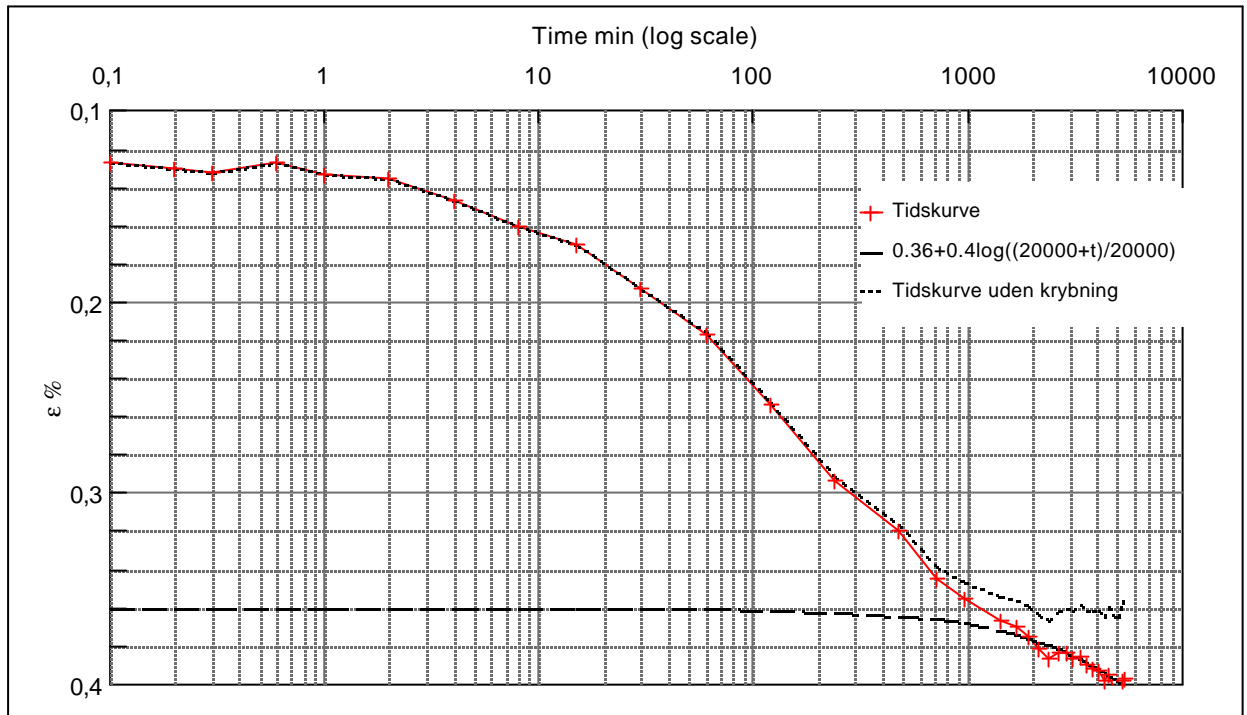
Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	5415
	Before	2,4	ϵ_0	0,00	ϵ_c %	0,12	K i kPa	7.169
	After	11,1	$\epsilon_{\sim\#}$	0,12	ϵ_s		k10 m/sec	2,5E-10
					ϵ_{kryb}	0	ck10 m ² /sec	1,79E-07



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.3
Executed: AMS/gt	Check:
Approved:	

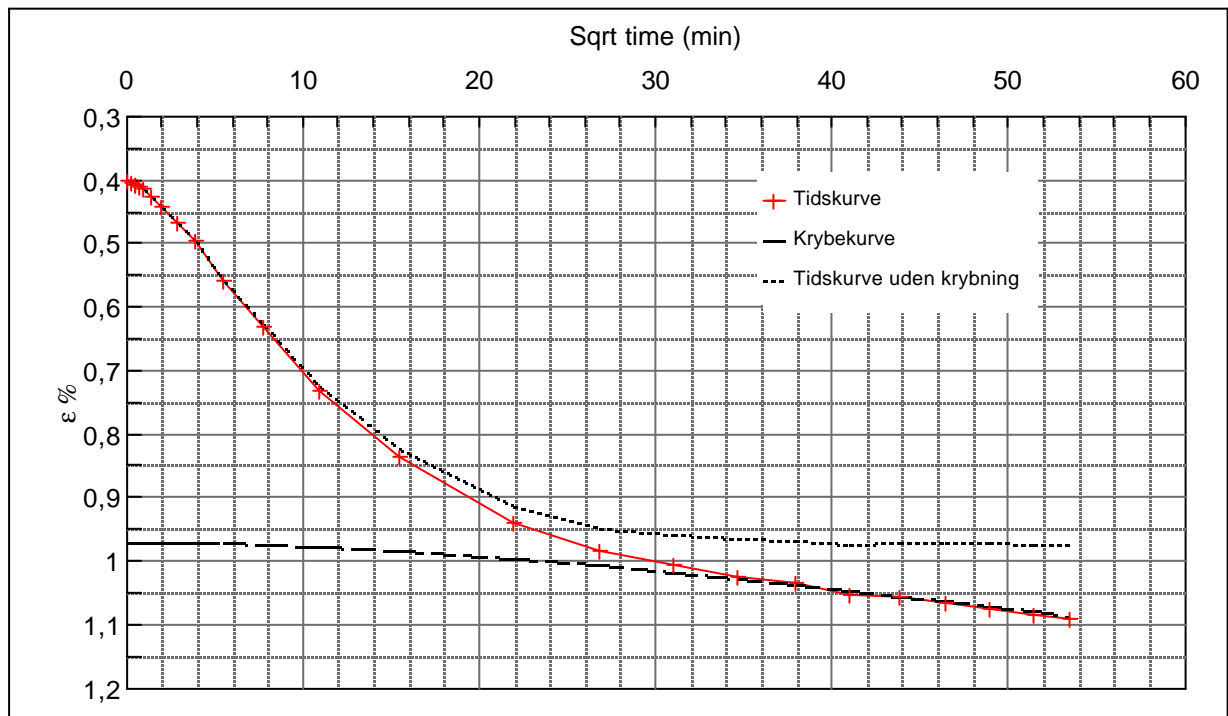
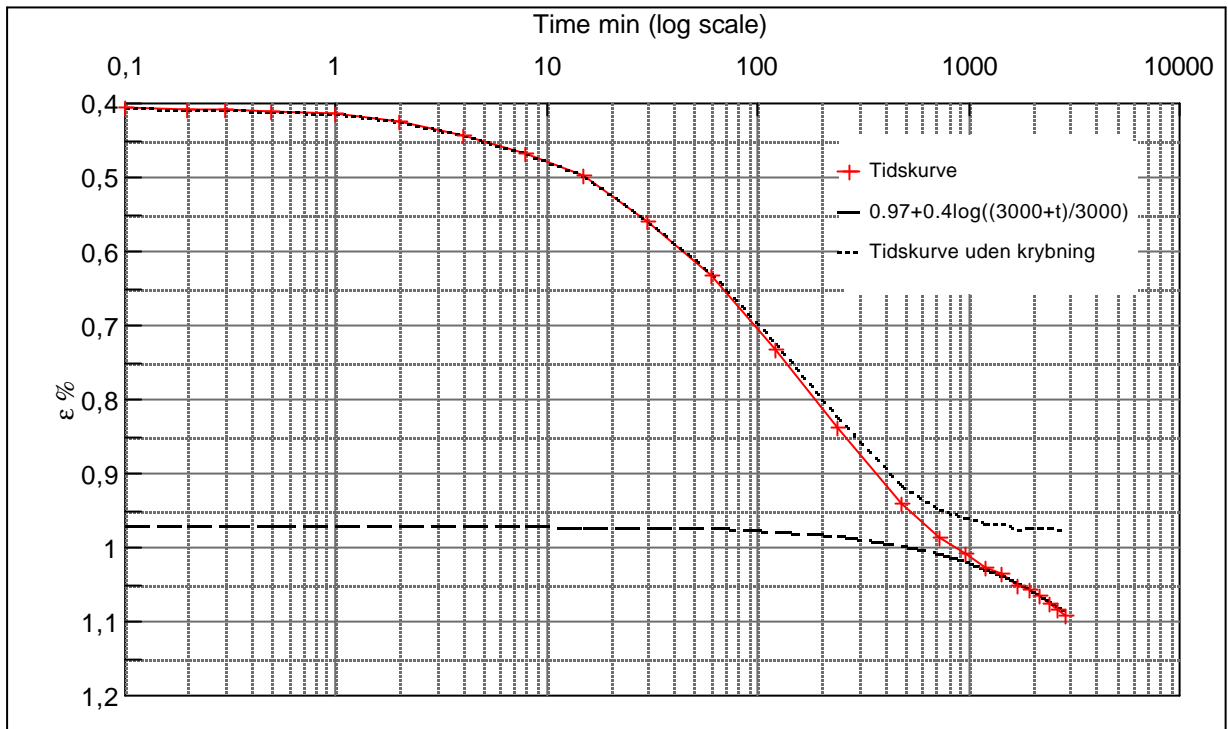
Step no 2	σ	kPa	ε	%	ε_i		t_c in sec	24000
	Before	11,1	ε_0	0,12	ε_c %	0,36	K_i kPa	3.614
	After	19,8	$\varepsilon_{\sim\#}$	0,40	ε_s	0,04	k_{10} m/sec	1,1E-10
					ε_{kryb}	0,04	ck_{10} m ² /sec	4,04E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.4
Executed: AMS/gt	Check:
Approved:	

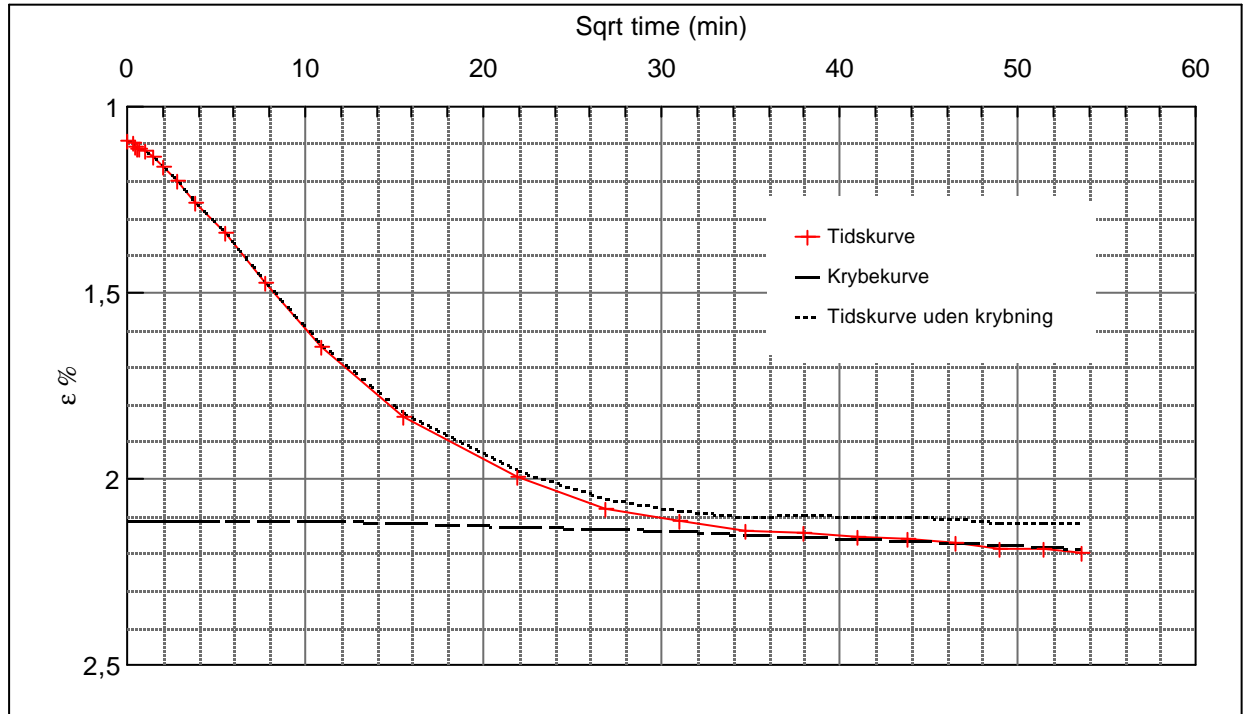
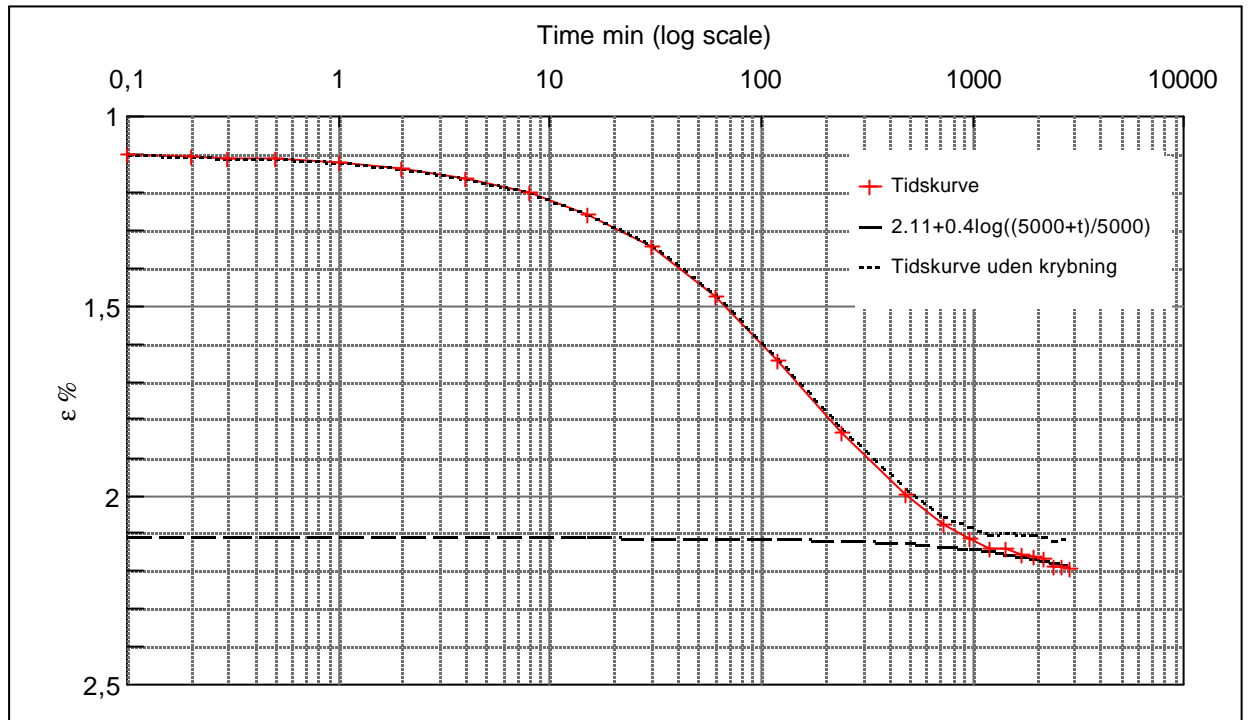
Step no 3	σ	kPa	ϵ	%	ϵ_i		tc in sec	19440
	Before	19,8	ϵ_0	0,40	ϵ_c %	0,97	K i kPa	3.043
	After	37,1	$\epsilon_{\sim\#}$	1,09	ϵ_s	0,17	k10 m/sec	1,6E-10
					ϵ_{kryb}	0,12	ck10 m ² /sec	4,99E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.5
Executed: AMS/gt	Check:
Approved:	

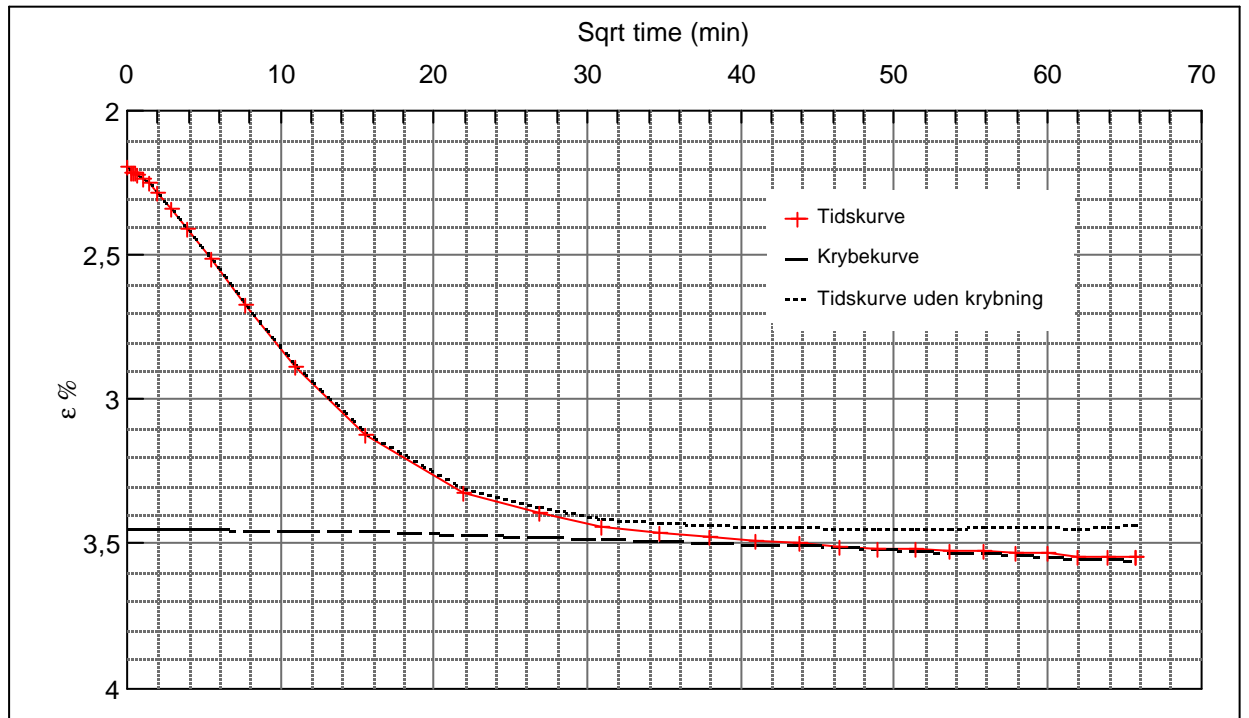
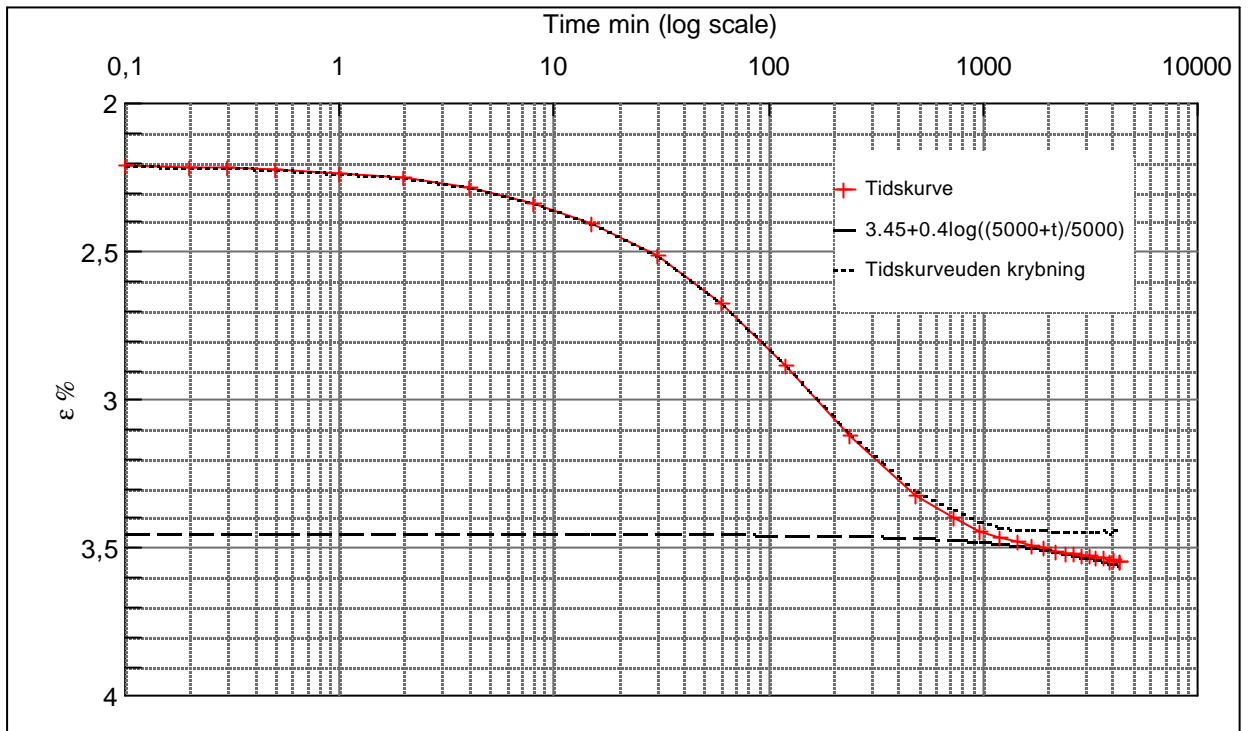
Step no 4	σ	kPa	ϵ	%	ϵ_i		tc in sec	22815
	Before	37,1	ϵ_0	1,09	ϵ_c %	2,11	K i kPa	3.407
	After	71,8	$\epsilon_{\sim\#}$	2,20	ϵ_s	0,14	k10 m/sec	1,2E-10
					ϵ_{kryb}	0,09	ck10 m ² /sec	4,25E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.6
Executed: AMS/gt	Check:
Approved:	

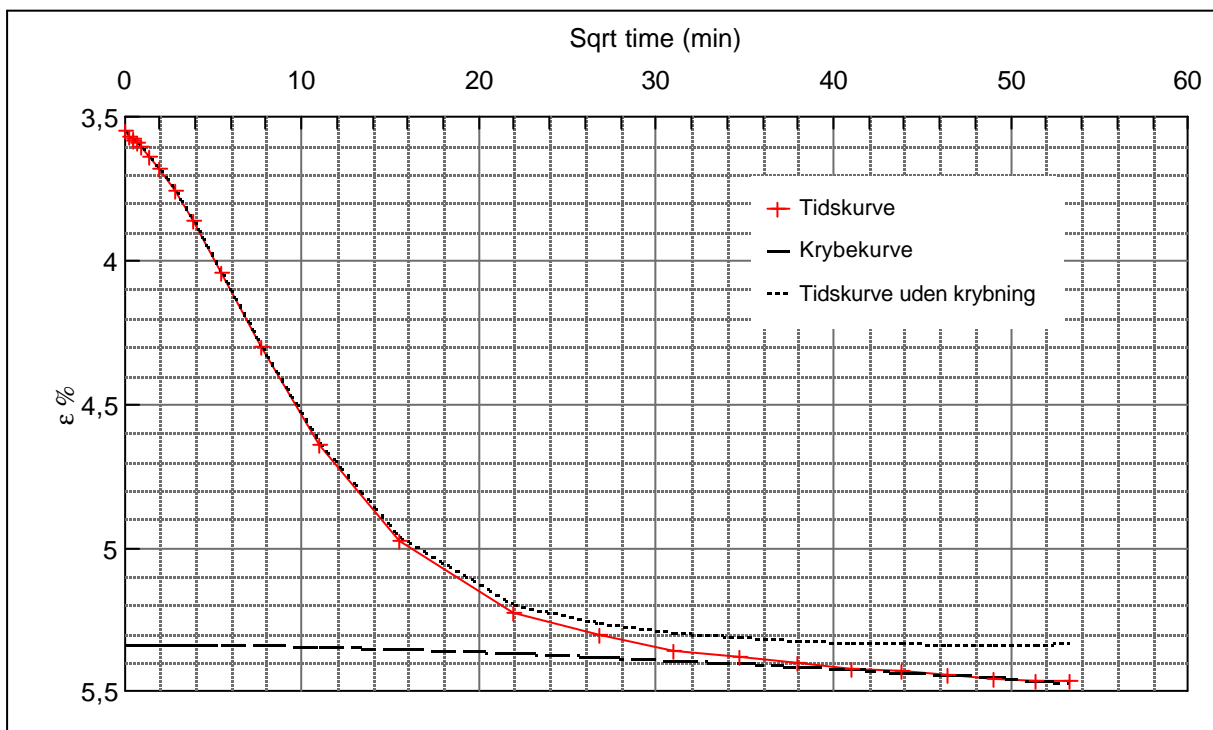
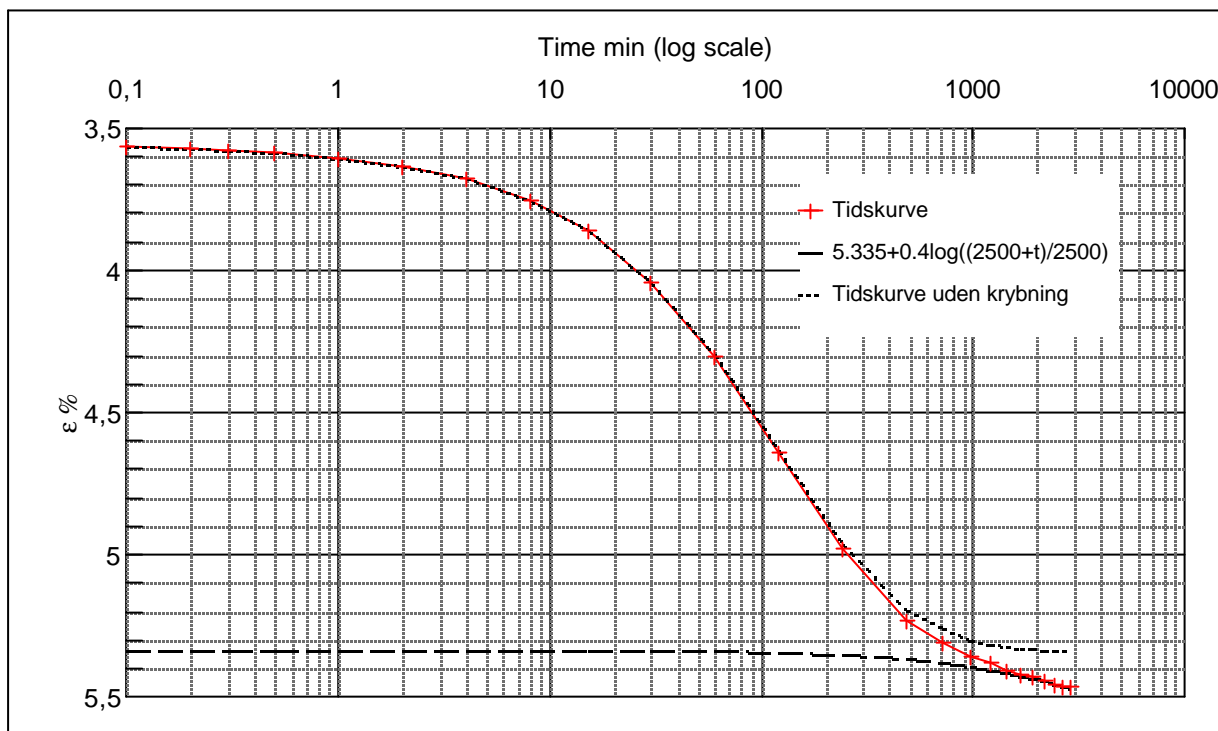
Step no 5	σ	kPa	ϵ	%	ϵ_i		tc in sec	21660
	Before	71,8	ϵ_0	2,19	ϵ_c %	3,45	K i kPa	5.515
	After	141,2	$\epsilon_{\sim\#}$	3,55	ϵ_s	0,16	k10 m/sec	8,0E-11
					ϵ_{kryb}	0,10	ck10 m ² /sec	4,48E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.7
Executed: AMS/gt	Check:
Approved:	

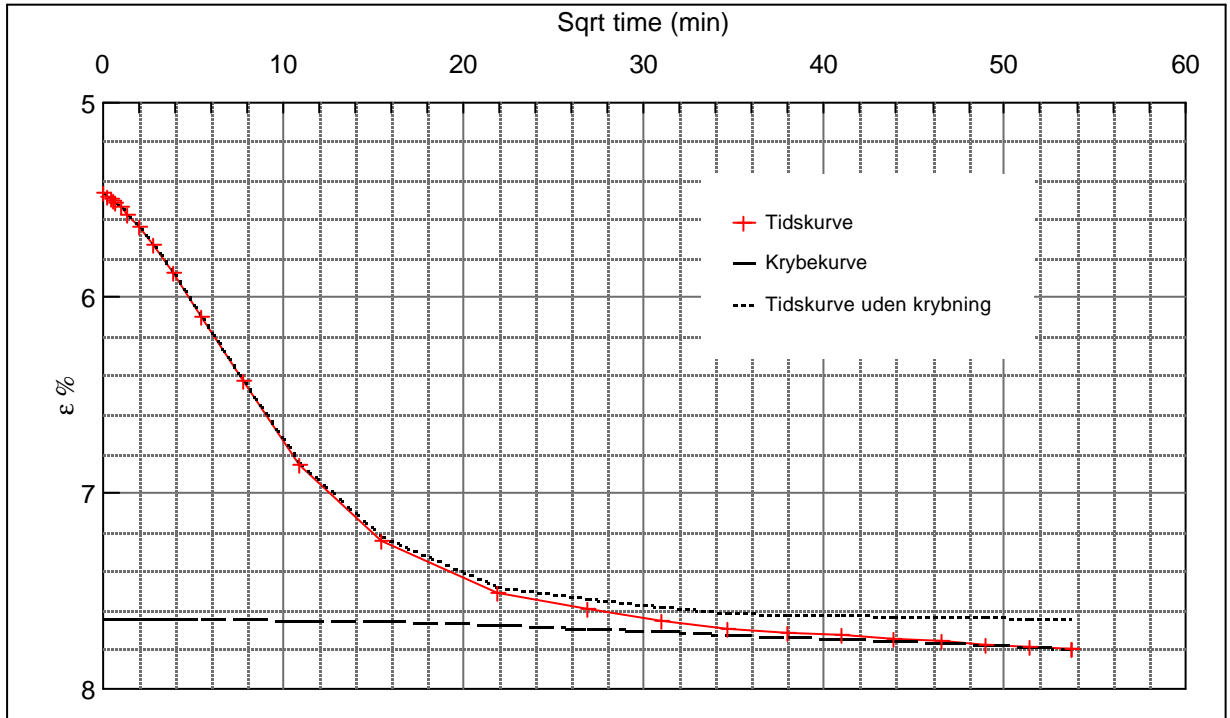
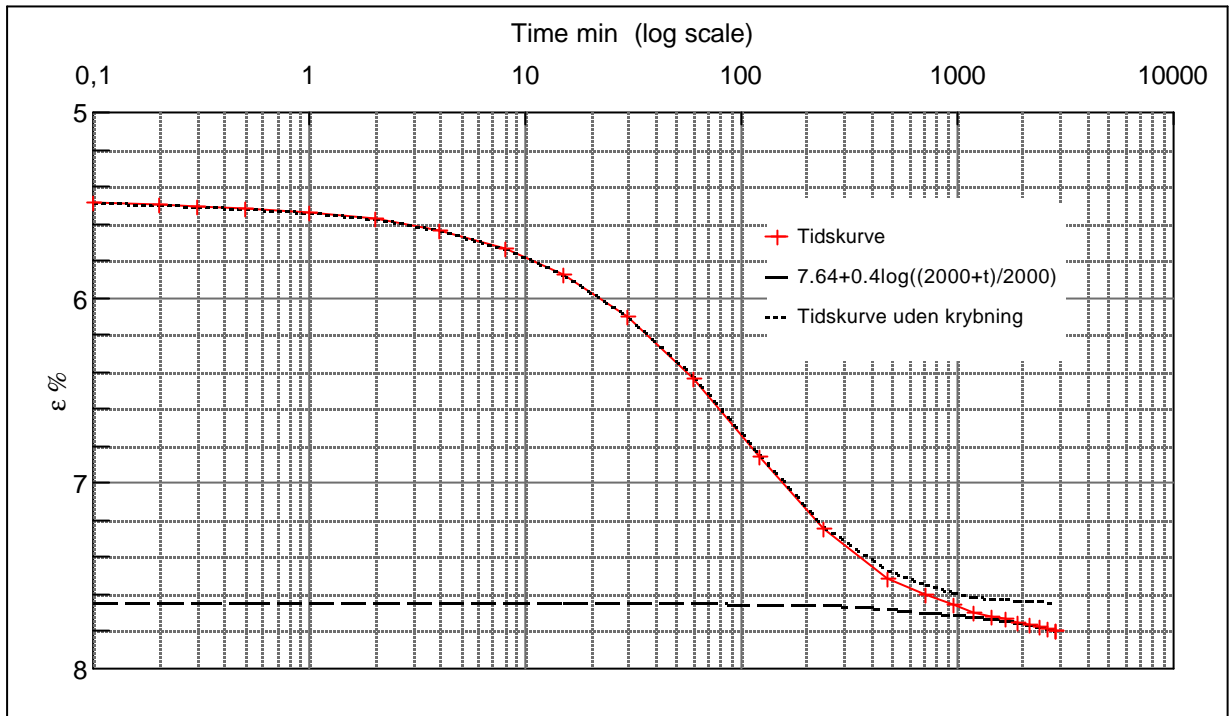
Step no 6	σ	kPa	ϵ	%	ϵ_i		tc in sec	17340
	Before	141,2	ϵ_0	3,55	ϵ_c %	5,34	K i kPa	9.701
	After	314,7	$\epsilon_{-#}$	5,47	ϵ_s	0,22	k10 m/sec	5,7E-11
					ϵ_{kryb}	0,13	ck10 m ² /sec	5,59E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.8
Executed: AMS/gt	Check:
Approved:	

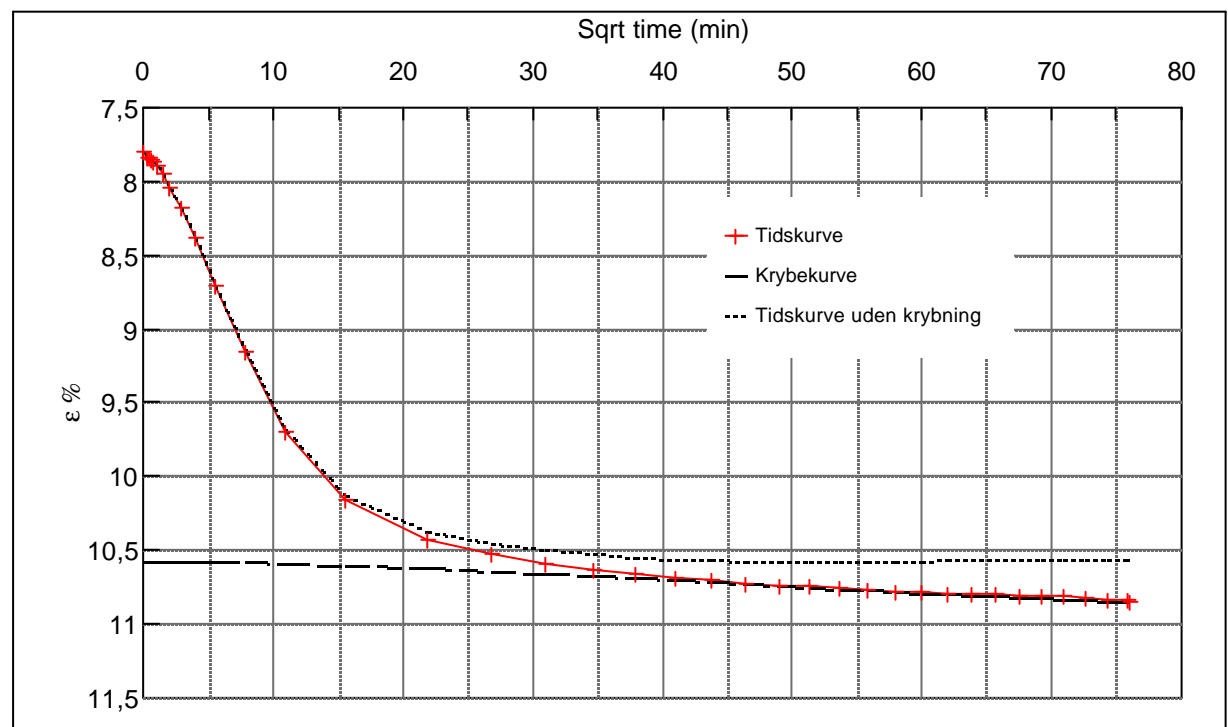
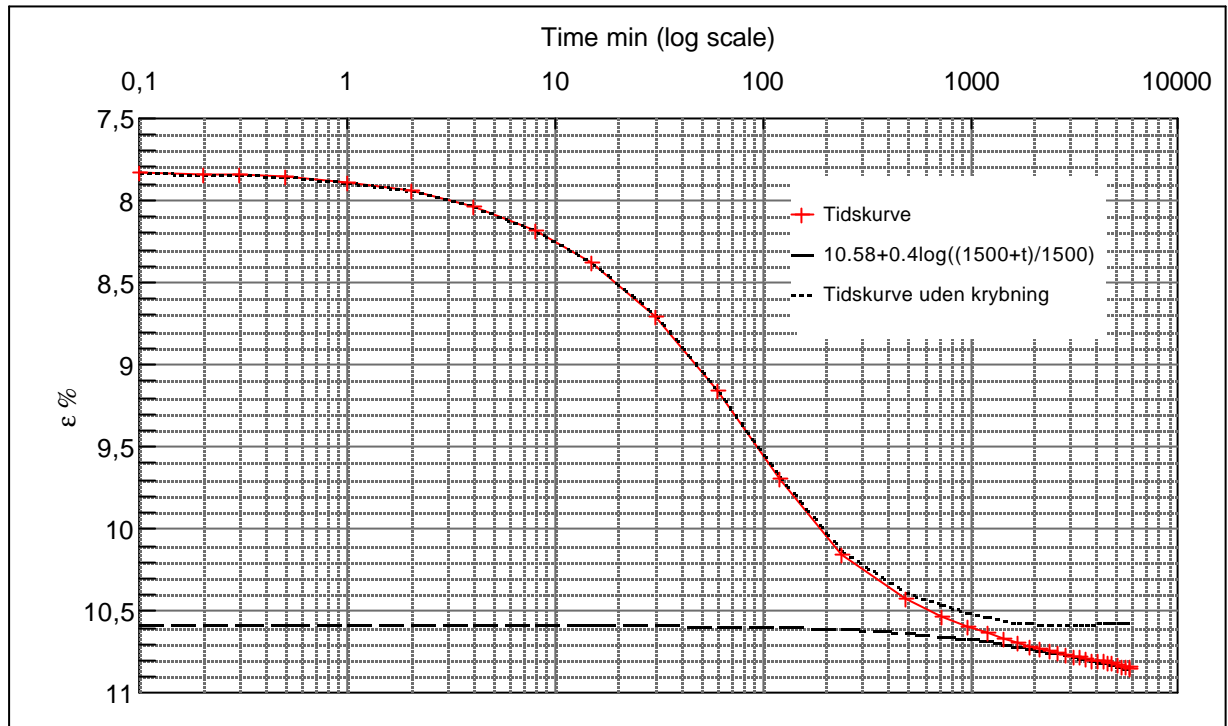
Step no 7	σ	kPa	ϵ	%	ϵ_i		tc in sec	15360
	Before	314,7	ϵ_0	5,46	ϵ_c %	7,64	K i kPa	15.940
	After	661,6	$\epsilon_{\sim\#}$	7,80	ϵ_s	0,25	k10 m/sec	3,9E-11
					ϵ_{kryb}	0,16	ck10 m ² /sec	6,31E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.9
Executed: AMS/gt	Check:
Approved:	

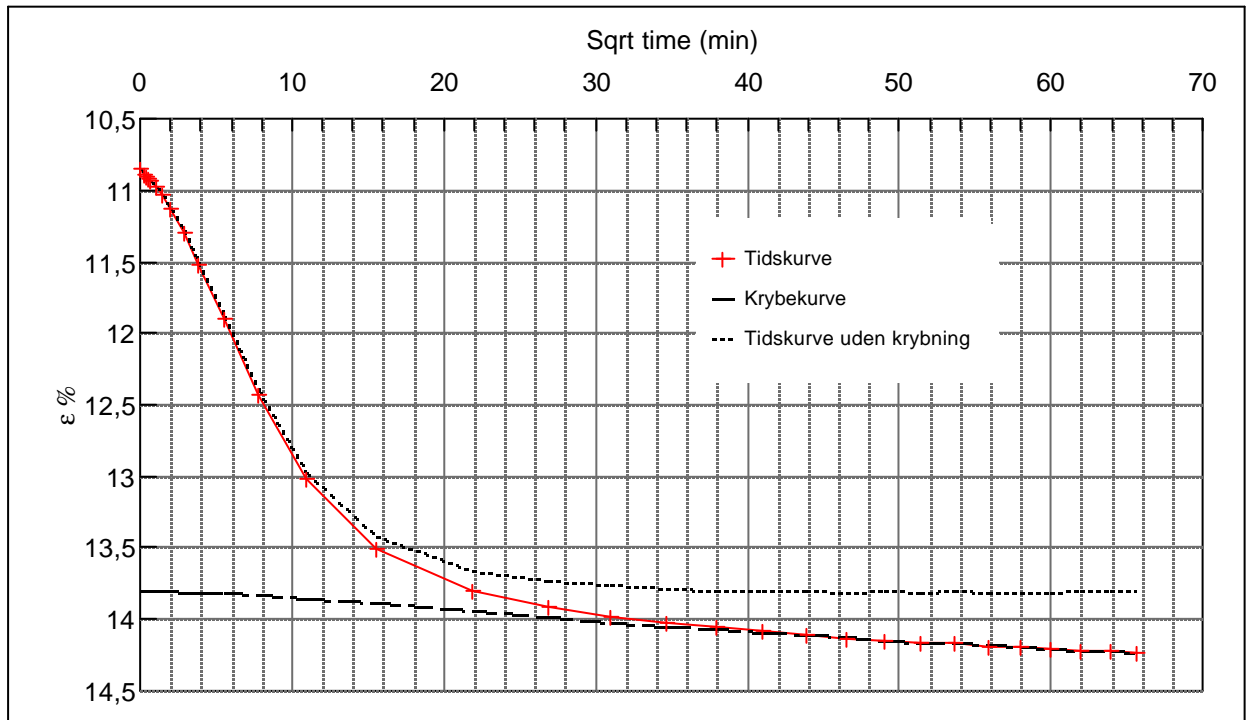
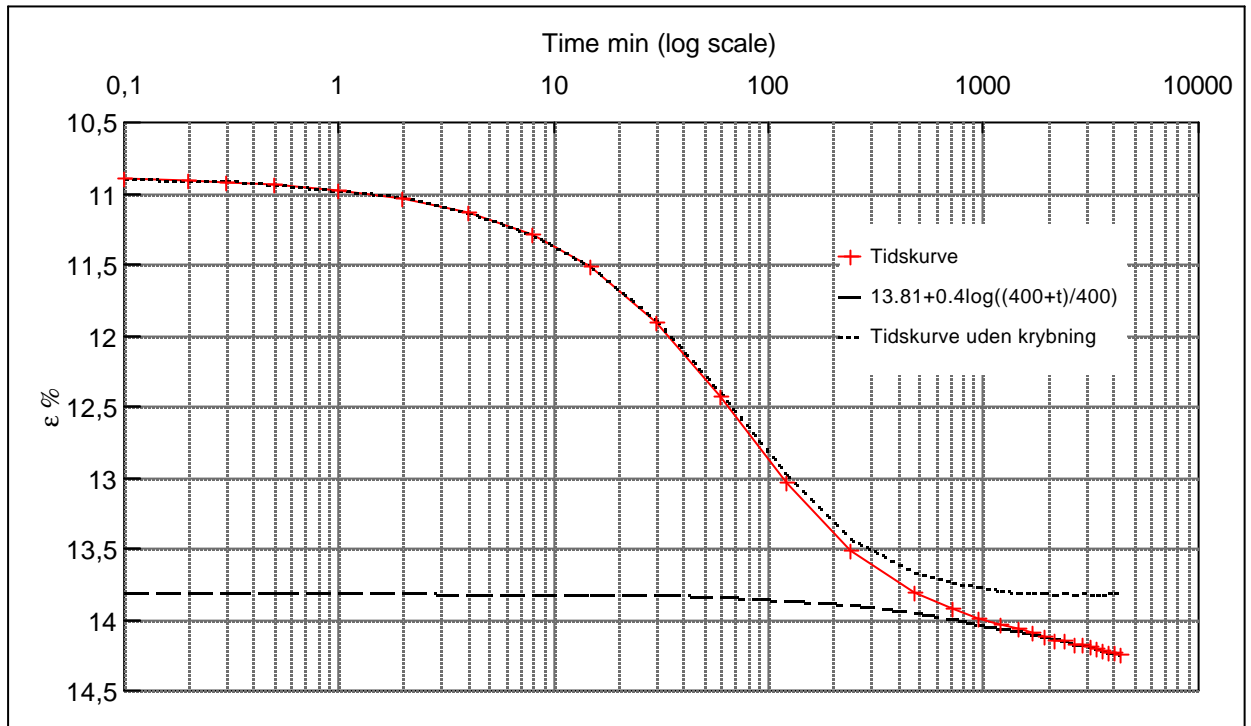
Step no 8	σ	kPa	ε	%	ε_i		tc in sec	13500
	Before	661,6	ε_0	7,80	ε_c %	10,58	K i kPa	24.946
	After	1.355,6	$\varepsilon_{\sim\#}$	10,85	ε_s	0,3	k10 m/sec	2,8E-11
					ε_{kryb}	0,27	ck10 m ² /sec	7,18E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.10
Executed: AMS/gt	Check:
Approved:	

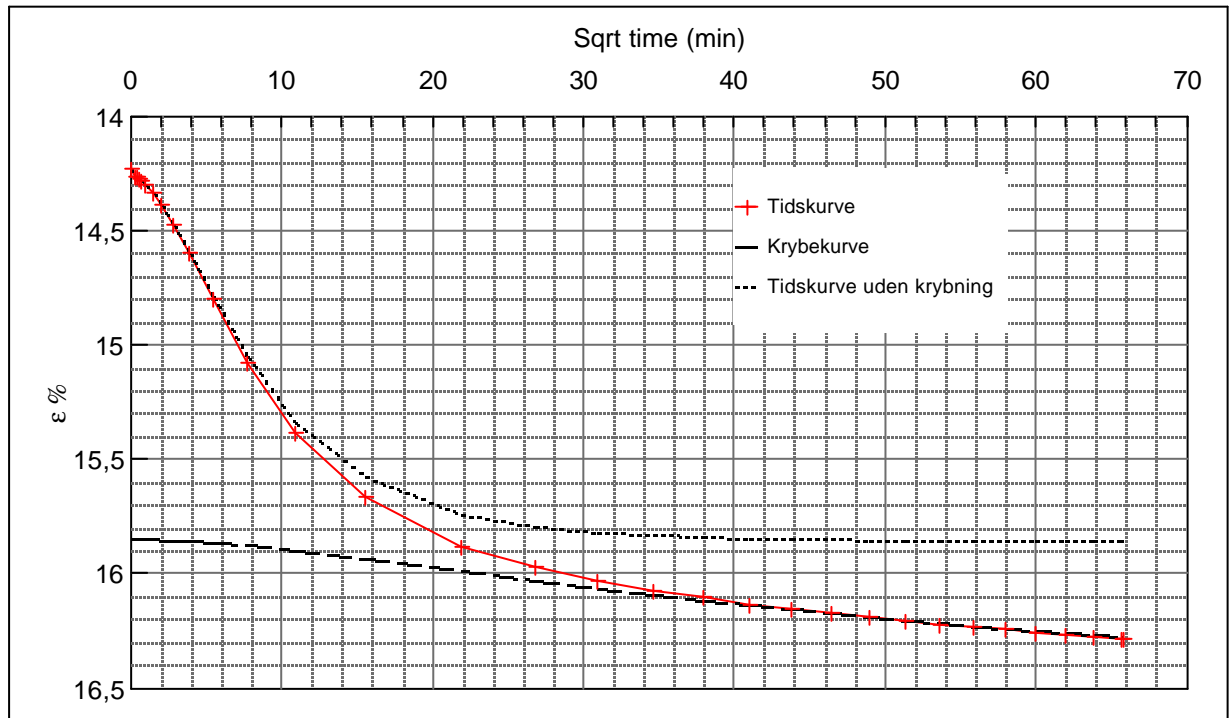
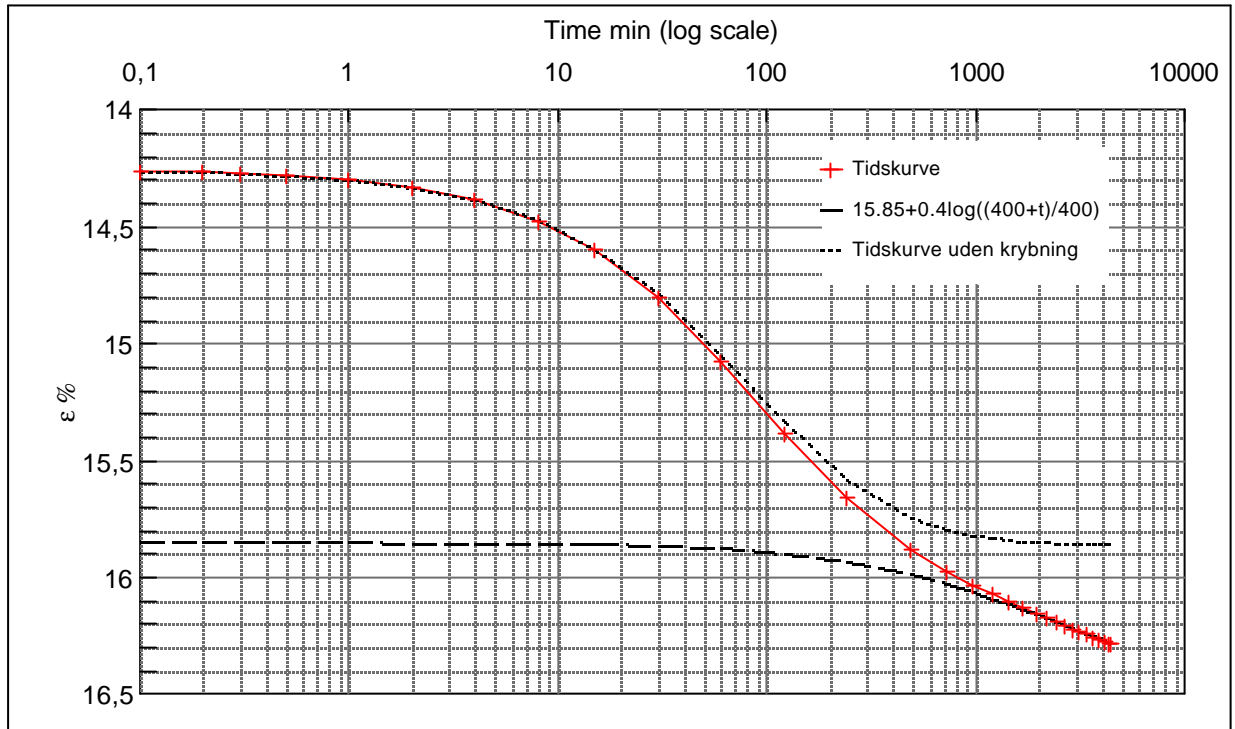
Step no 9	σ	kPa	ϵ	%	ϵ_i		tc in sec	11760
	Before	1.355,6	ϵ_0	10,85	ϵ_c %	13,81	K i kPa	46.833
	After	2.743,4	$\epsilon_{\sim\#}$	14,23	ϵ_s	0,4	k10 m/sec	1,7E-11
					ϵ_{kryb}	0,42	ck10 m^2/sec	8,25E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby		AAU Encl. No 5.11
Executed:	AMS/gt	Check:
Approved:		

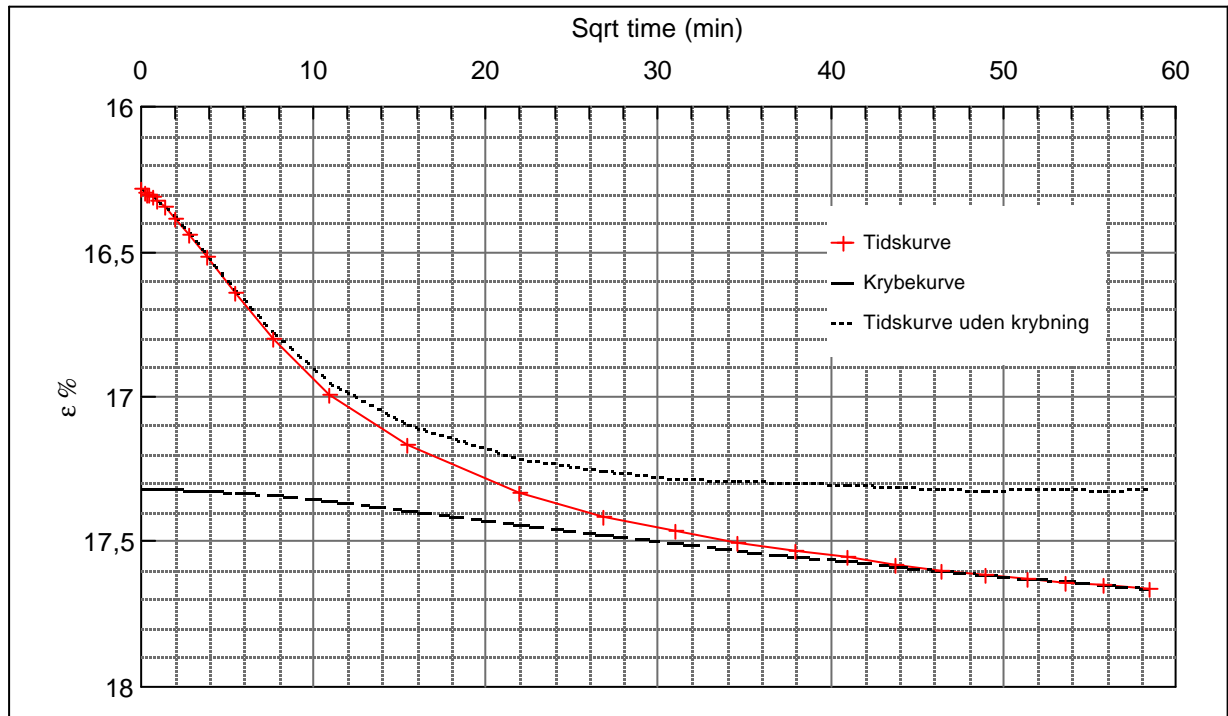
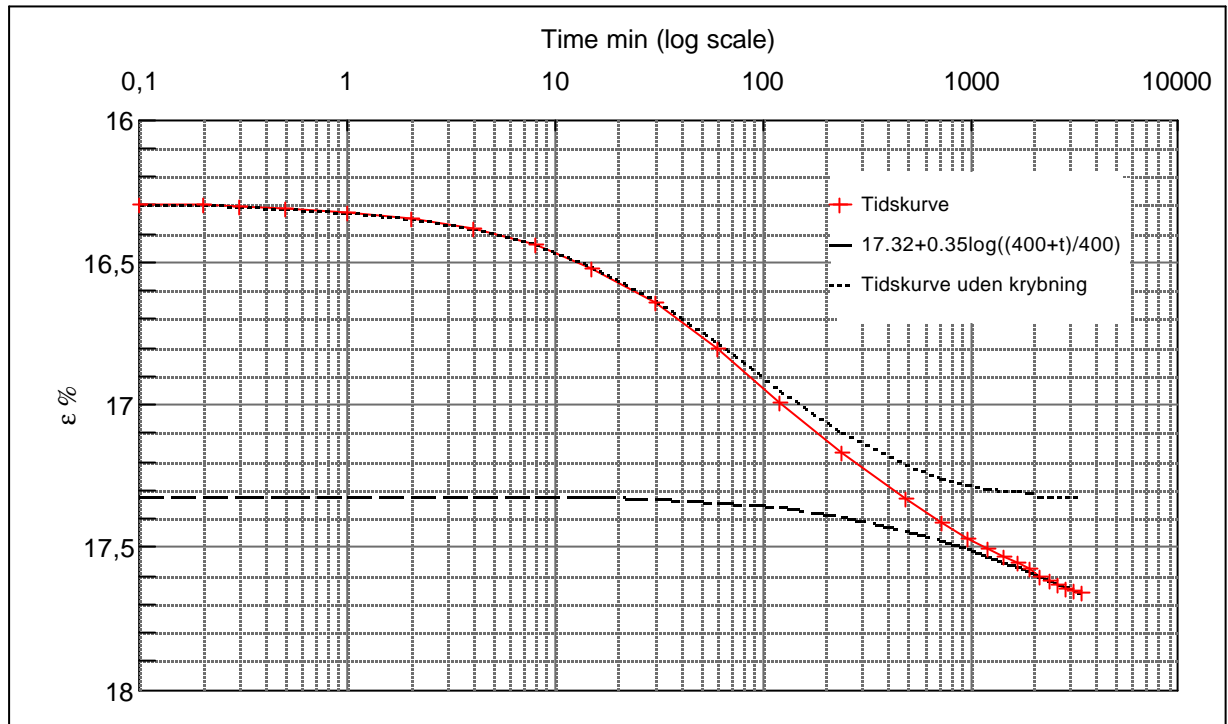
Step no 10	σ	kPa	ϵ	%	ϵ_i		tc in sec	11760
	Before	2.743,4	ϵ_0	14,23	ϵ_c %	15,85	K i kPa	85.757
	After	4.131,2	$\epsilon_{\sim\#}$	16,28	ϵ_s	0,4	k10 m/sec	9,4E-12
					ϵ_{kryb}	0,43	ck10 m ² /sec	8,25E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.12
Executed: AMS/gt	Check:
Approved:	

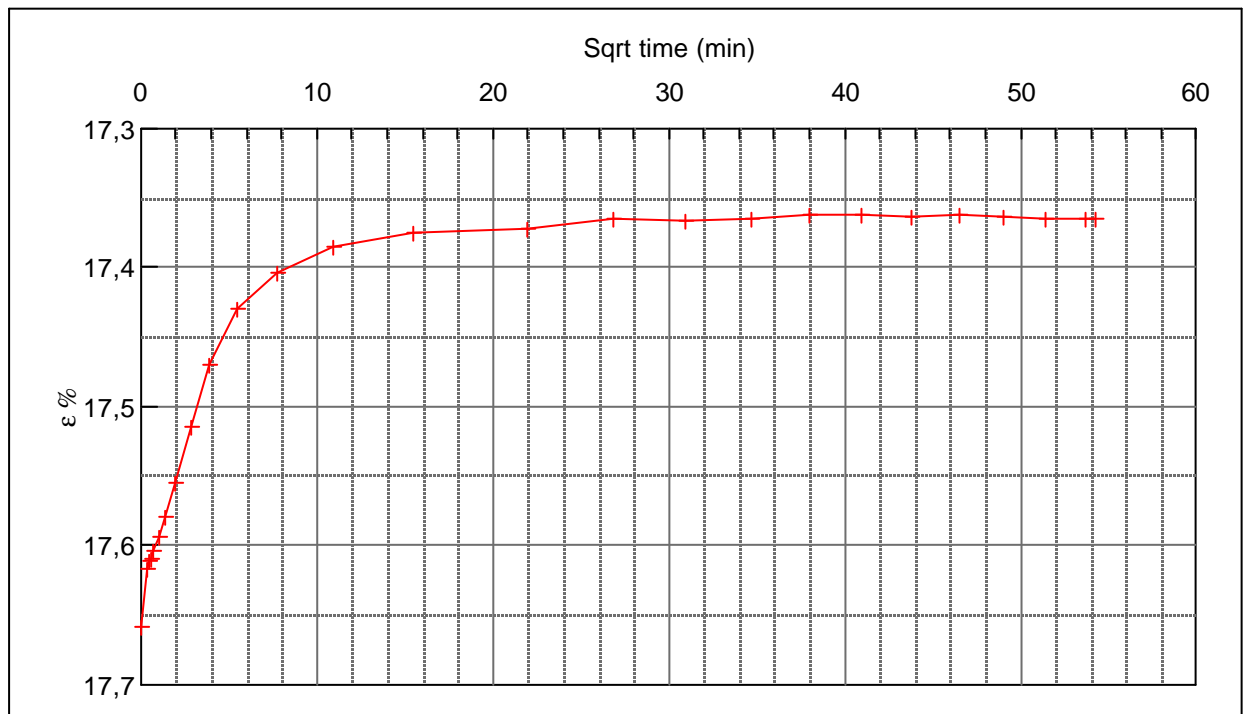
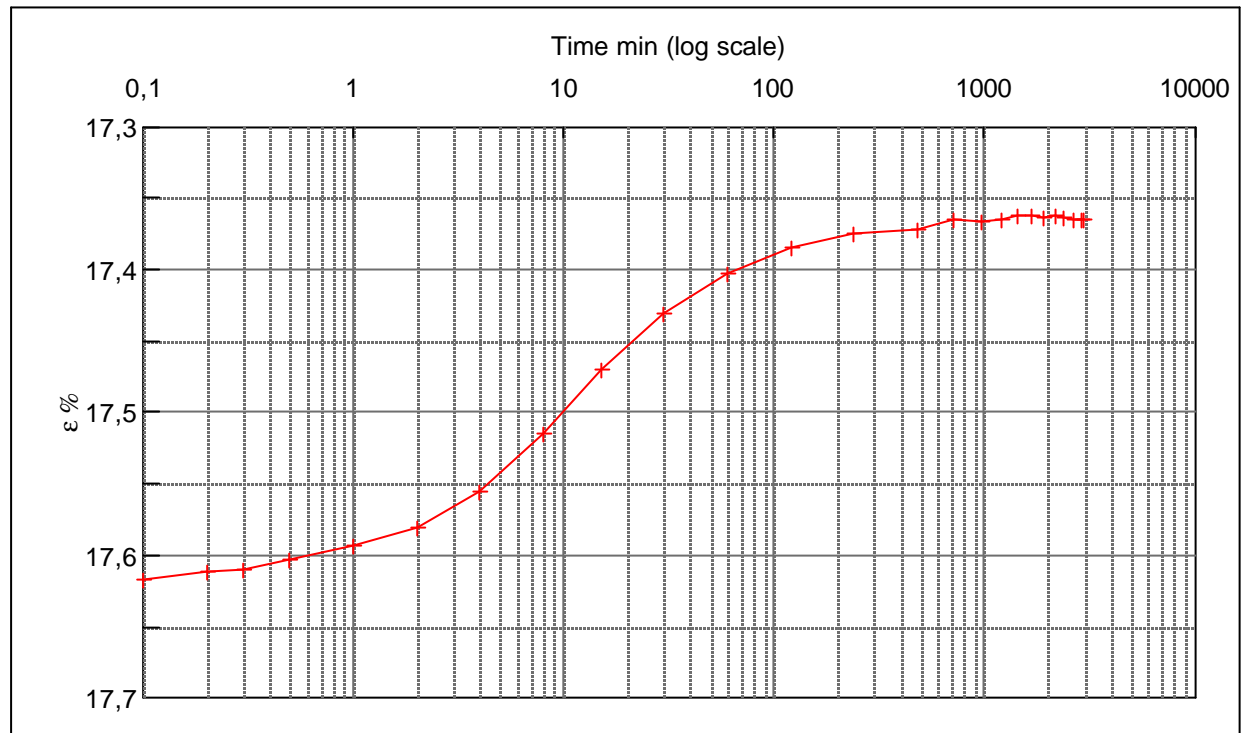
Step no 11	σ	kPa	ϵ	%	ϵ_i		tc in sec	13500
	Before	4.131,2	ϵ_0	16,29	ϵ_c %	17,32	K i kPa	134.090
	After	5.519,1	$\epsilon_{\sim\#}$	17,66	ϵ_s	0,35	k10 m/sec	5,3E-12
					ϵ_{kryb}	0,34	ck10 m ² /sec	7,18E-08



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.13
Executed: AMS/gt	Check:
Approved:	

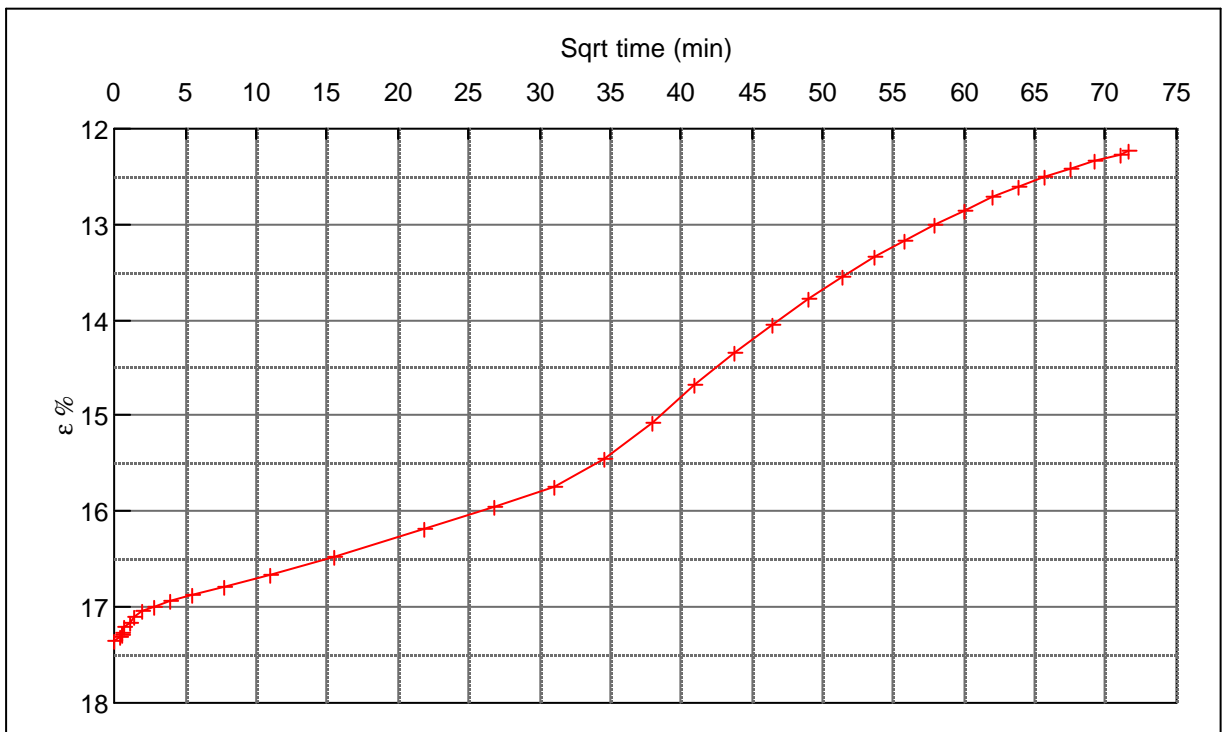
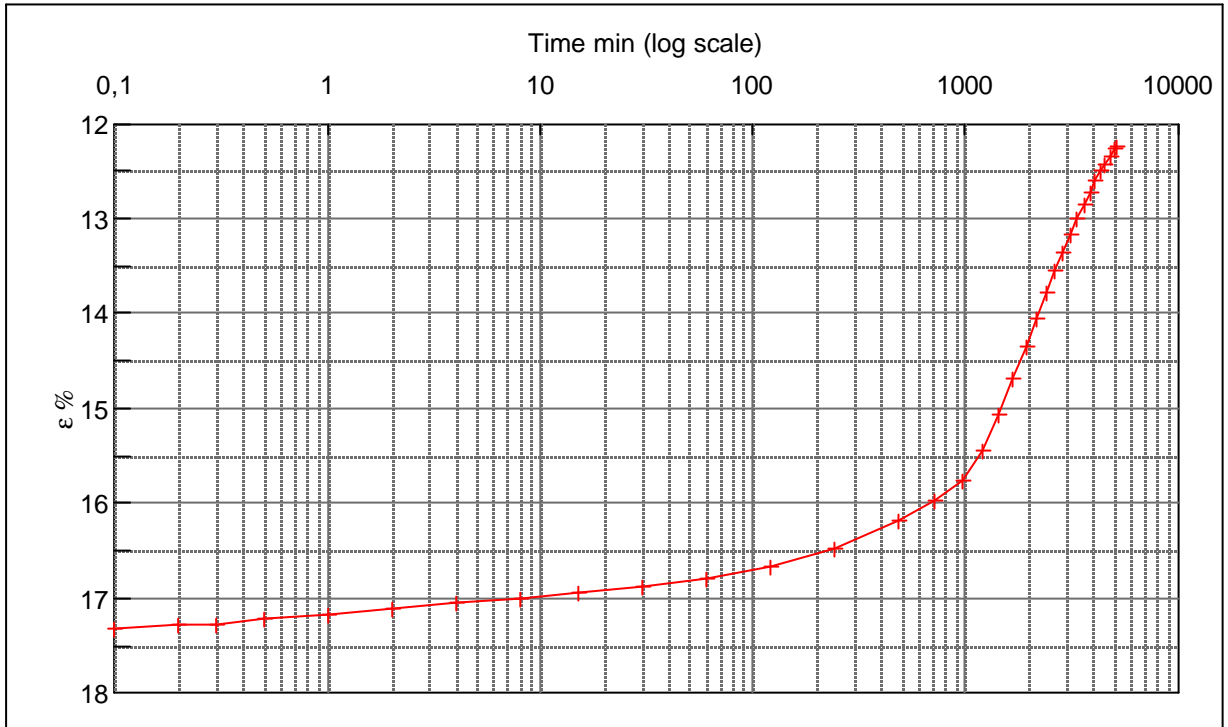
Step no 12	σ	kPa	ϵ	%	ϵ_i		tc in sec	2160
	Before	5.519,1	ϵ_0	17,66	ϵ_c %	17,37	K i kPa	946.248
	After	2.743,4	$\epsilon_{\sim\#}$	17,37	ϵ_s		k10 m/sec	4,7E-12
					ϵ_{kryb}		ck10 m^2 /sec	4,49E-07



Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 5.14
Executed: AMS/gt	Check:
Approved:	

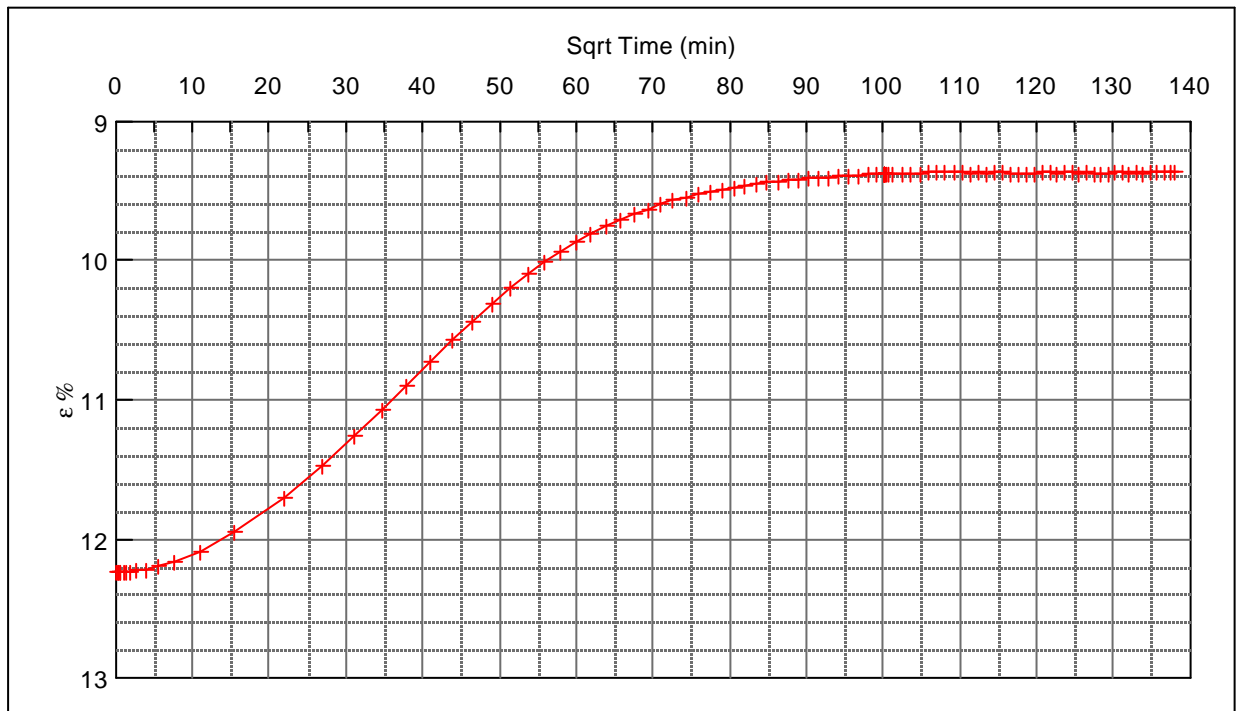
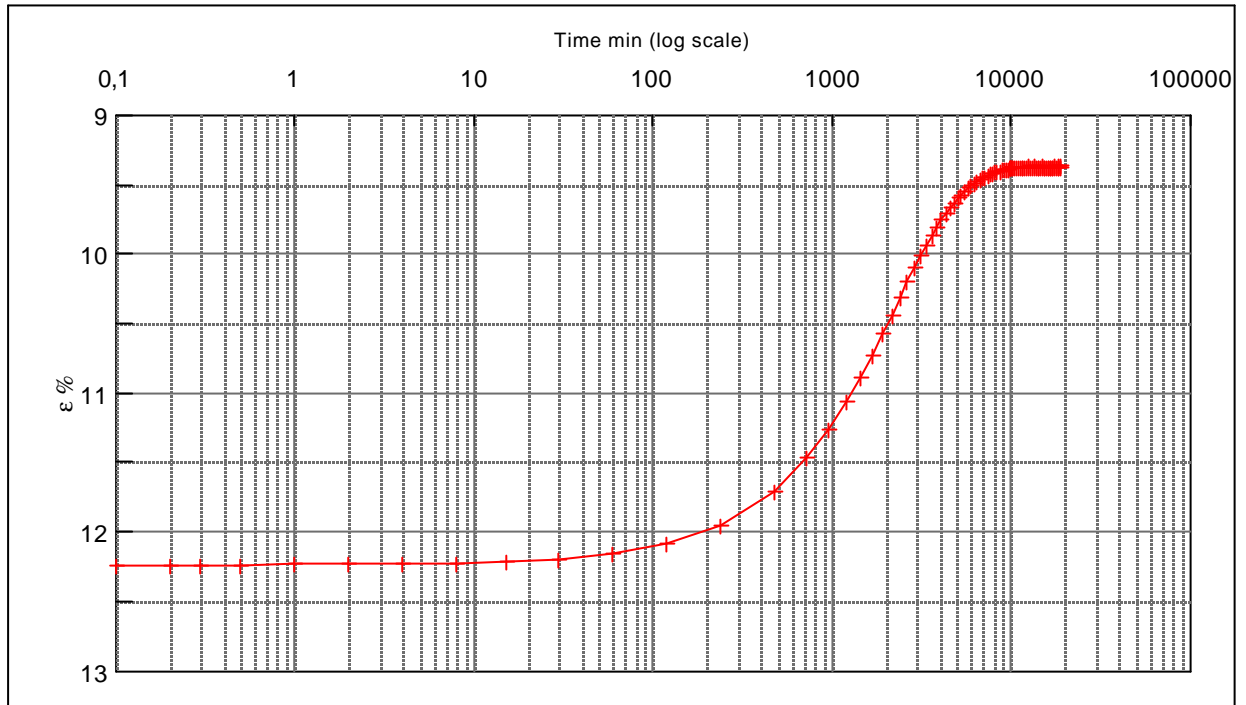
Step no 13	σ	kPa	ϵ	%	ϵ_i	tc in sec	230640
	Before	2.743,4	ϵ_0	17,36	ϵ_c %	K i kPa	52.819
	After	37,1	$\epsilon_{-#}$	12,24	ϵ_s	k10 m/sec	7,8E-13
					ϵ_{kryb}	ck10 m ² /sec	4,20E-09



Material: Clay, marine, Lateglacial		
Bor no :	Depth:	2.2 m.b.s
Lab. no: 462	Insitu stress.	30 kPa

Job: Nr. Lyngby		AAU
		Encl. No 5.15
Executed:	AMS/gt	Check:
Approved:		

Step no 14	σ	kPa	ϵ	%	ϵ_i		tc in sec	269340
	Before	37,1	ϵ_0	12,24	ϵ_c %	9,37	K i kPa	1.209
	After	2,4	$\epsilon_{\sim\#}$	9,37	ϵ_s		k10 m/sec	2,9E-11
					ϵ_{kryb}		ck10 m ² /sec	3,60E-09

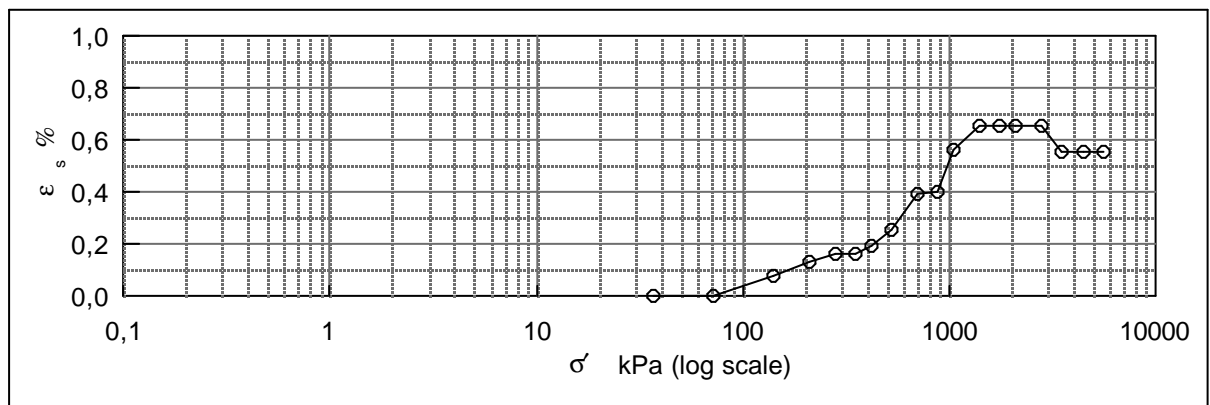
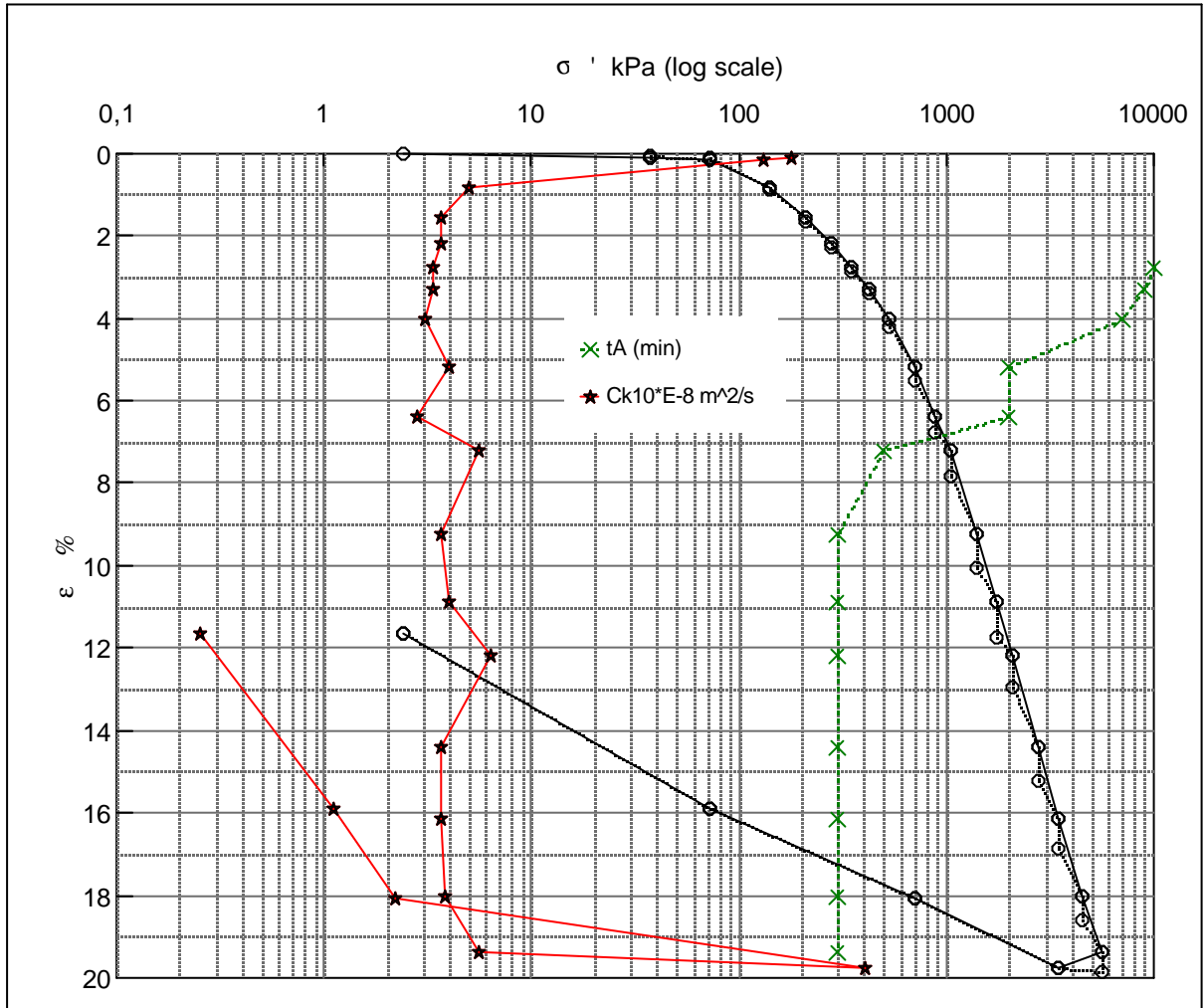


Material: Clay, marine, Lateglacial	
Bor no : Lab. no: 462	Depth: 2.2 m.b.s Insitu stress. 30 kPa

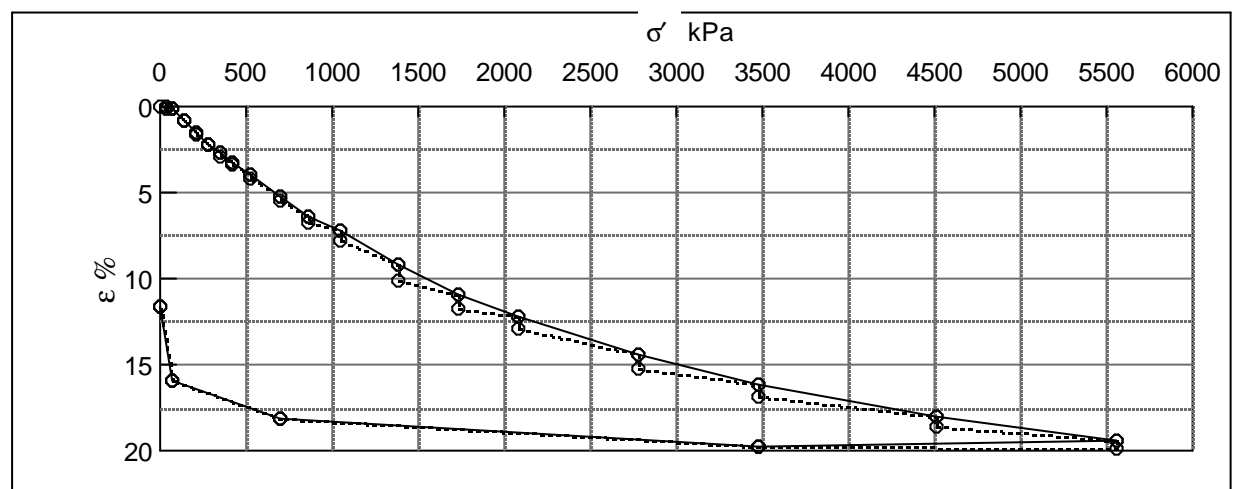
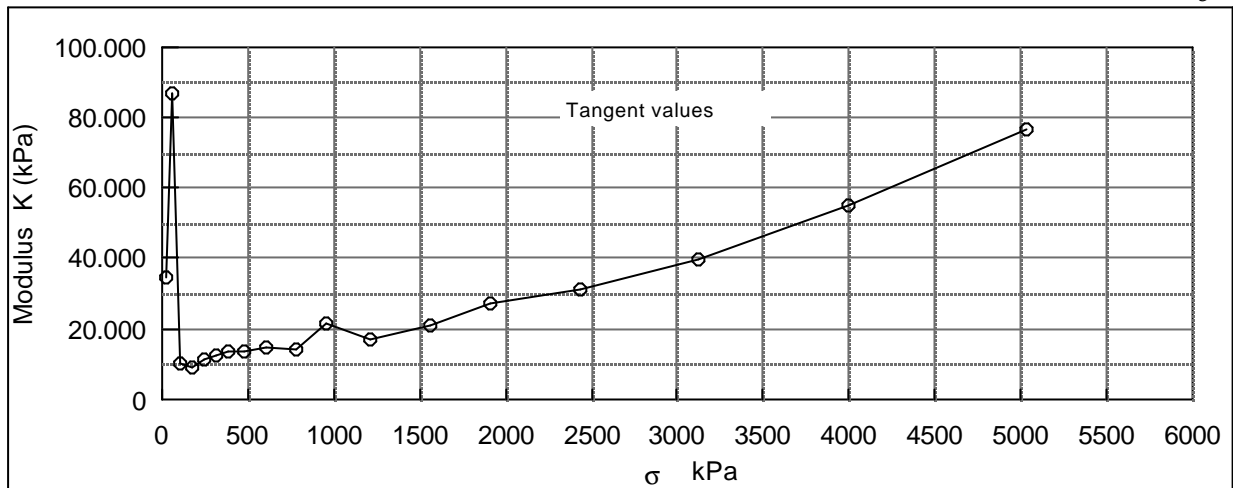
Job: Nr. Lyngby	AAU
	Encl. No 5.16
Executed: AMS/gt	Check:
Approved:	

28.10.05/gt

Description of soil: Clay, marine, Lateglacial				Water content %	Before	After
				Bulk density Mg/m ³	32,9	26,7
				Grain density Mg/m ³	1,89	1,99
				Void ratio	2,7	0,9
Bor no :	1	Overburden pressure σ'_o	110 kPa	Degr. of Saturation %	98,8	100
Lab. no:	2	Vane strength c_v	146 kPa	Dimension H x D mm	30x60	27,2x60
Level :	10.8 m.b.s	CPT - value q_c	MPa			



Job: Nørre Lyngby		AAU
		Encl. No 6.1
Executed:	AMS/gt	Check:
Approved:		



Test results

Q 17 %
 Qs 0,65 %
 σ_{pc} ~1000 kPa

σ kPa	ϵ_c %	ϵ_s % / lct	C k10 m ² /s	σ_m kPa	K kPa	w %
2,4	0,00					34,9
37,1	0,10	0,00	1,8E-06	19,8	34695,8	34,9
71,8	0,14	0,00	1,3E-06	54,5	86739,4	34,8
141,2	0,83	0,08	5,0E-08	106,5	10130,2	34,4
210,6	1,58	0,13	3,7E-08	175,9	9190,9	33,8
280,0	2,20	0,16	3,7E-08	245,3	11192,2	33,4
349,4	2,76	0,16	3,3E-08	314,7	12391,3	33,0
418,8	3,28	0,19	3,3E-08	384,1	13474,1	32,6
522,9	4,03	0,25	3,1E-08	470,8	13786,4	32,1
696,3	5,20	0,39	4,0E-08	609,6	14827,3	31,3
869,8	6,40	0,40	2,8E-08	783,1	14456,6	30,4
1.043,3	7,20	0,56	5,6E-08	956,6	21684,9	29,9
1.390,3	9,25	0,65	3,7E-08	1.216,8	16924,8	28,4
1.737,2	10,88	0,65	4,0E-08	1.563,7	21285,8	27,3
2.084,2	12,16	0,65	6,3E-08	1.910,7	27106,1	26,4
2.778,1	14,40	0,65	3,7E-08	2.431,1	30978,4	24,8
3.472,0	16,14	0,55	3,7E-08	3.125,0	39995,1	23,6
4.512,9	18,02	0,55	3,8E-08	3.992,4	55218,7	22,3
5.553,8	19,38	0,55	5,6E-08	5.033,3	76534,8	21,3
3.472,0	19,77		4,0E-06	4.512,9	-536532,6	21,0
696,3	18,08		2,2E-08	2.084,2	164435,0	22,2
71,8	15,89		1,1E-08	384,1	28556,2	23,8
2,4	11,67		2,5E-09	37,1	1641,2	26,7

Remark:

Job:
Nørre Lyngby

AAU

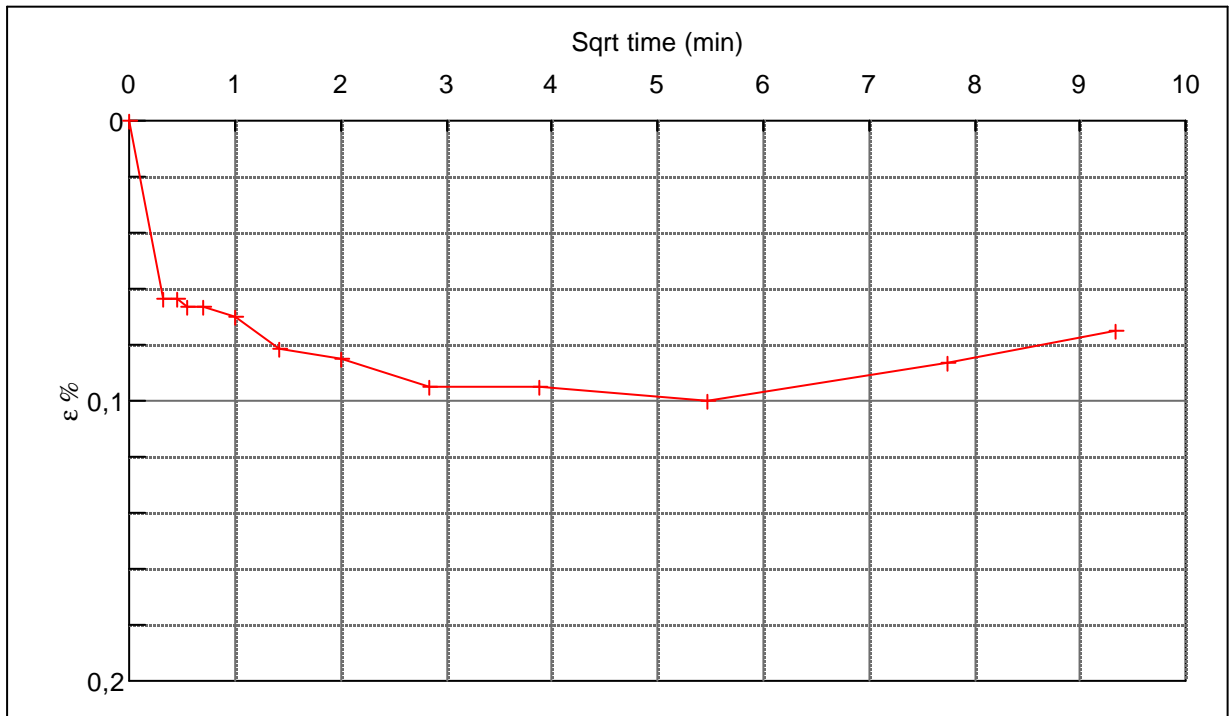
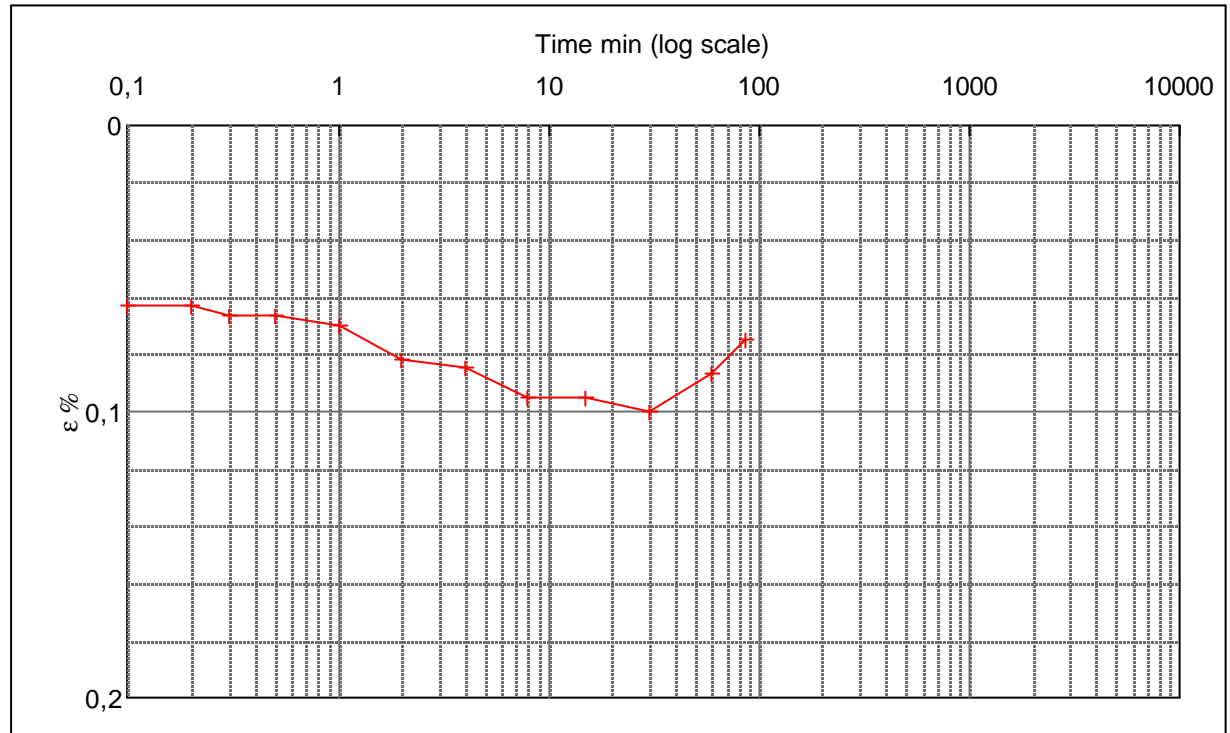
Encl. No
6.2

Executed: AMS/gt

Check:

Approved:

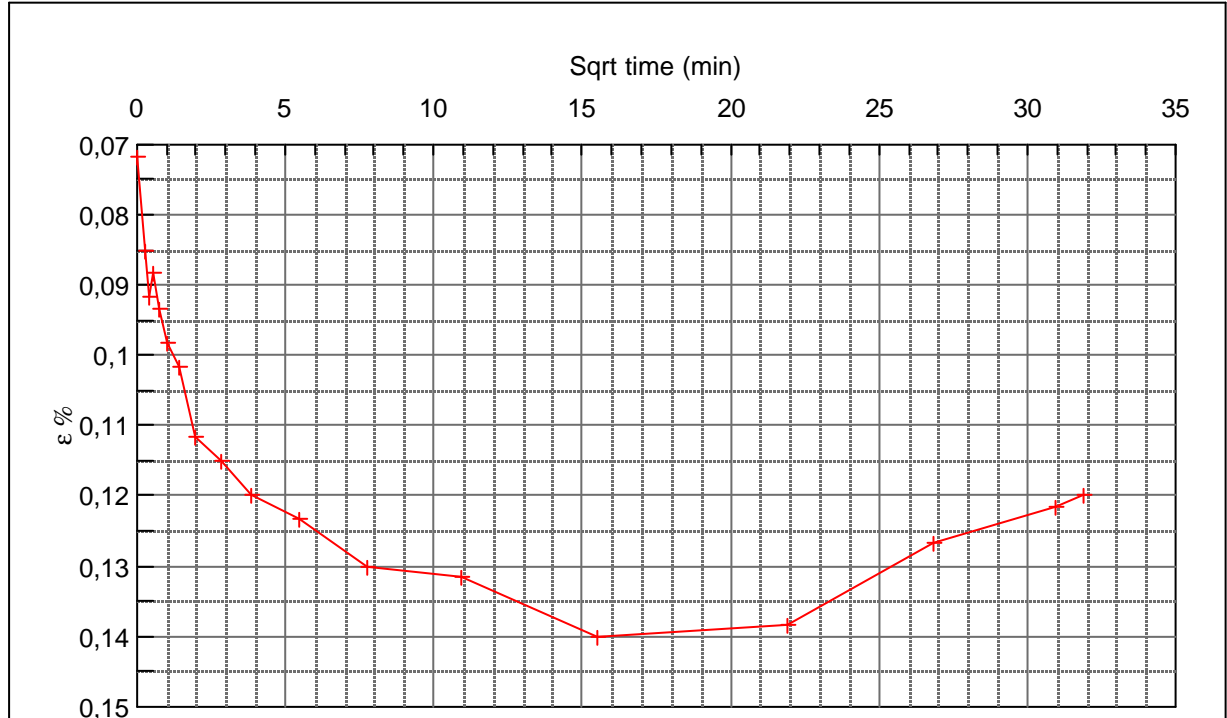
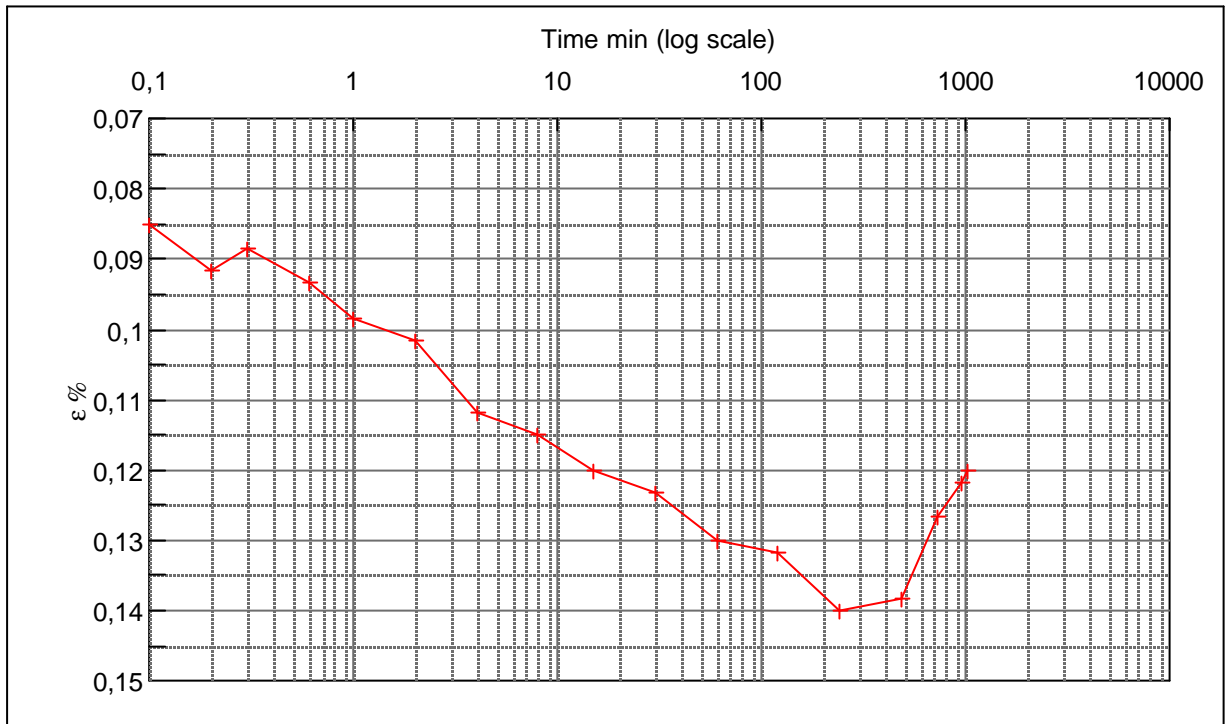
Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	540
	Before	2,4	ϵ_0	0,00	ϵ_c %	0,1	K i kPa	34.696
	After	37,1	$\epsilon_{\sim\#}$	0,08	ϵ_s		k10 m/sec	5,1E-10
					ϵ_{kryb}	(0,03)	ck10 m ² /sec	1,80E-06



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 10.8 m.b.s
Lab. no: 2	Insitu stress. 110 kPa

Job: Nørre Lyngby	AAU
	Encl. No 6.3
Executed: AMS/gt	Check:
Approved:	

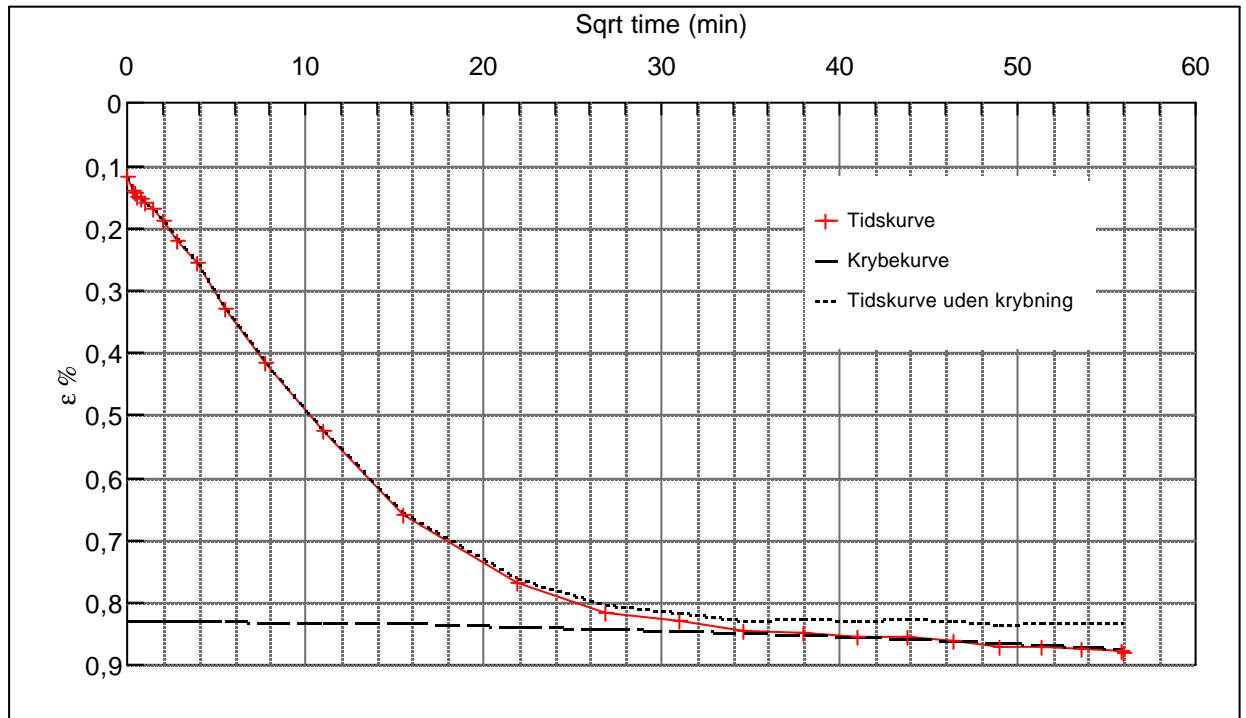
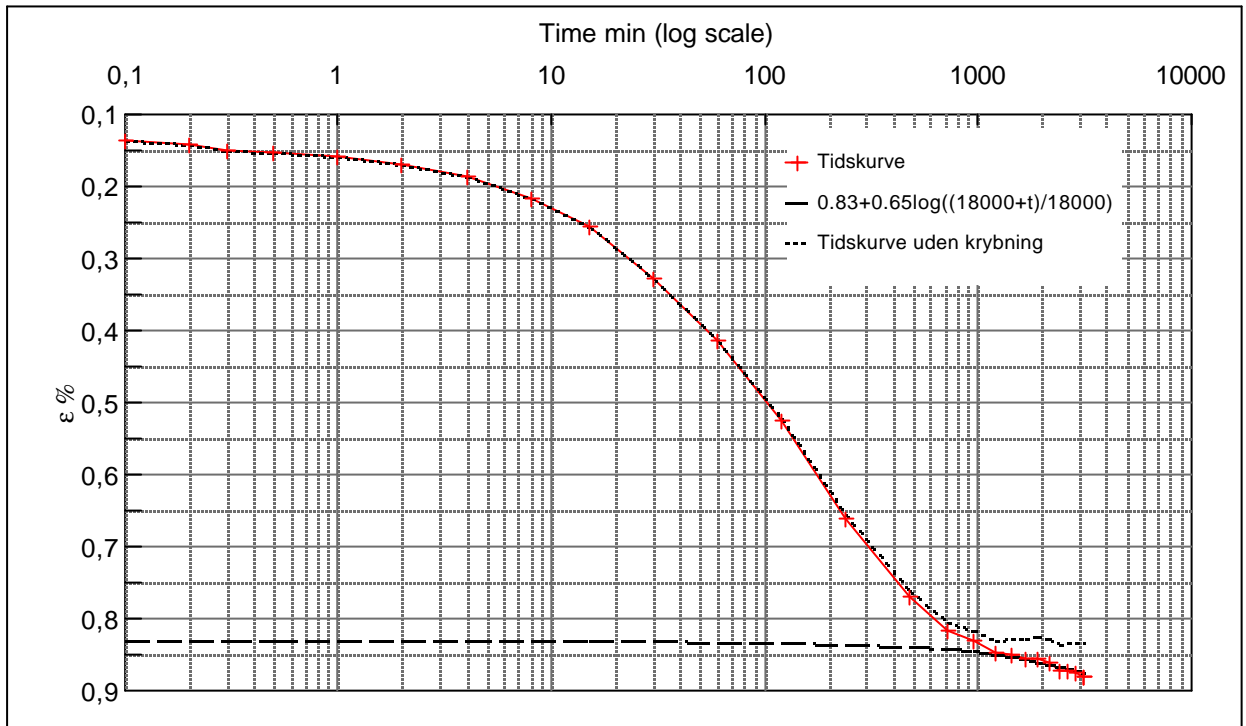
Step no 2	σ	kPa	ϵ	%	ϵ_i		tc in sec	735
	Before	37,1	ϵ_0	0,07	ϵ_c %	0,14	K i kPa	50.774
	After	71,8	$\epsilon_{\sim\#}$	0,12	ϵ_s		k10 m/sec	2,6E-10
					ϵ_{kyb}	-0,02	ck10 m ² /sec	1,32E-06



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 10.8 m.b.s
Lab. no: 2	Insitu stress. 110 kPa

Job: Nørre Lyngby	AAU
	Encl. No 6.4
Executed: AMS/gt	Check:
Approved:	

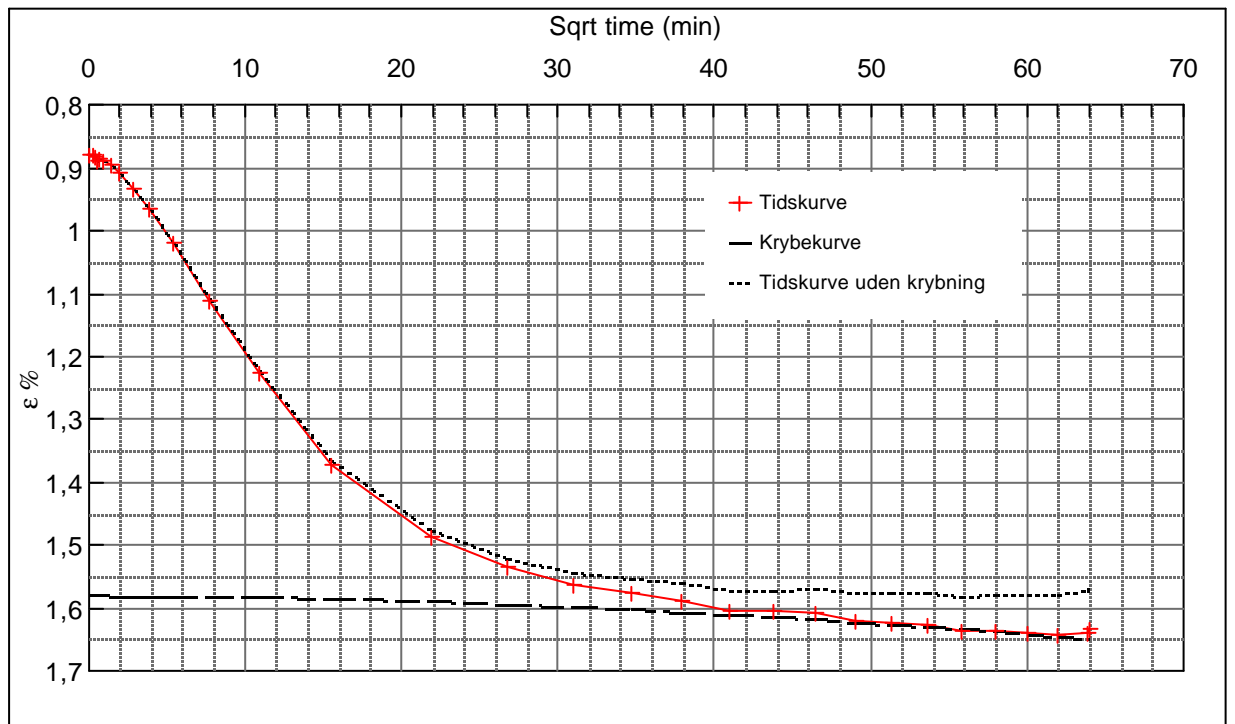
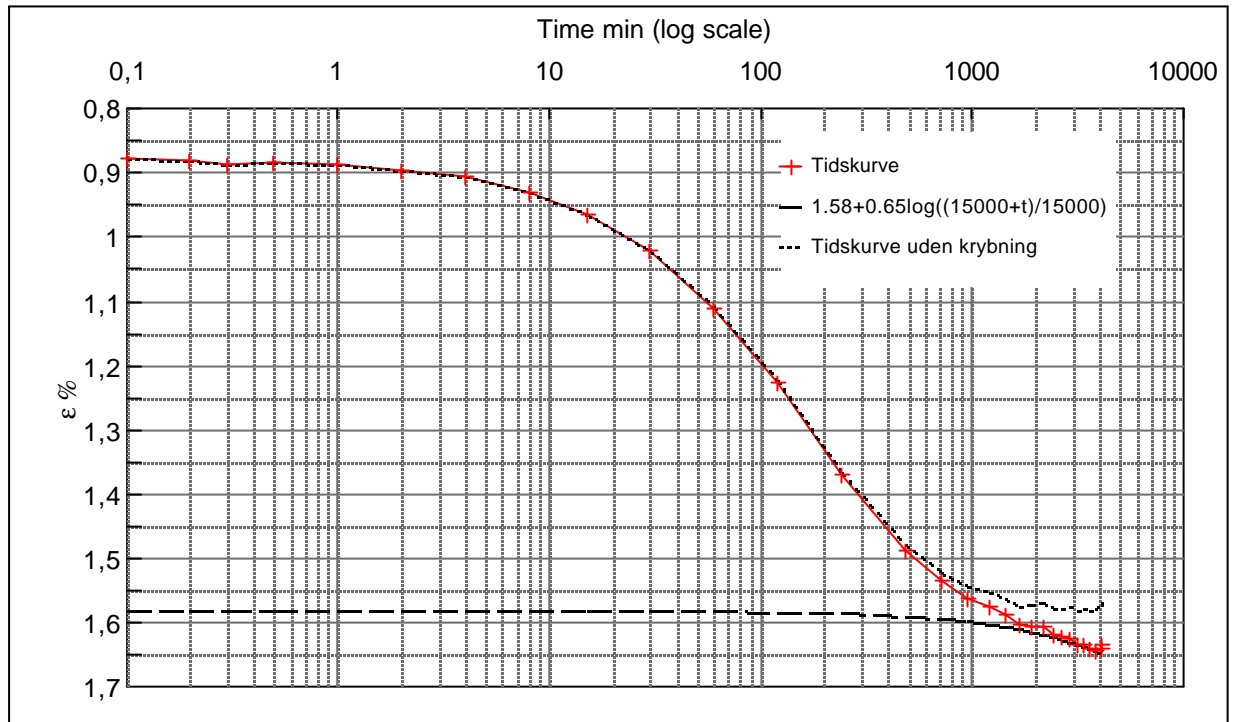
Step no 3	σ	kPa	ϵ	%	ϵ_i		tc in sec	19440
	Before	71,8	ϵ_0	0,12	ϵ_c %	0,83	K i kPa	9.796
	After	141,2	$\epsilon_{\sim\#}$	0,88	ϵ_s	0,08	k10 m/sec	5,0E-11
					ϵ_{kryb}	0,06	ck10 m ² /sec	4,99E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 10.8 m.b.s
Lab. no:	2	Insitu stress. 110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.5
Approved:		Check:

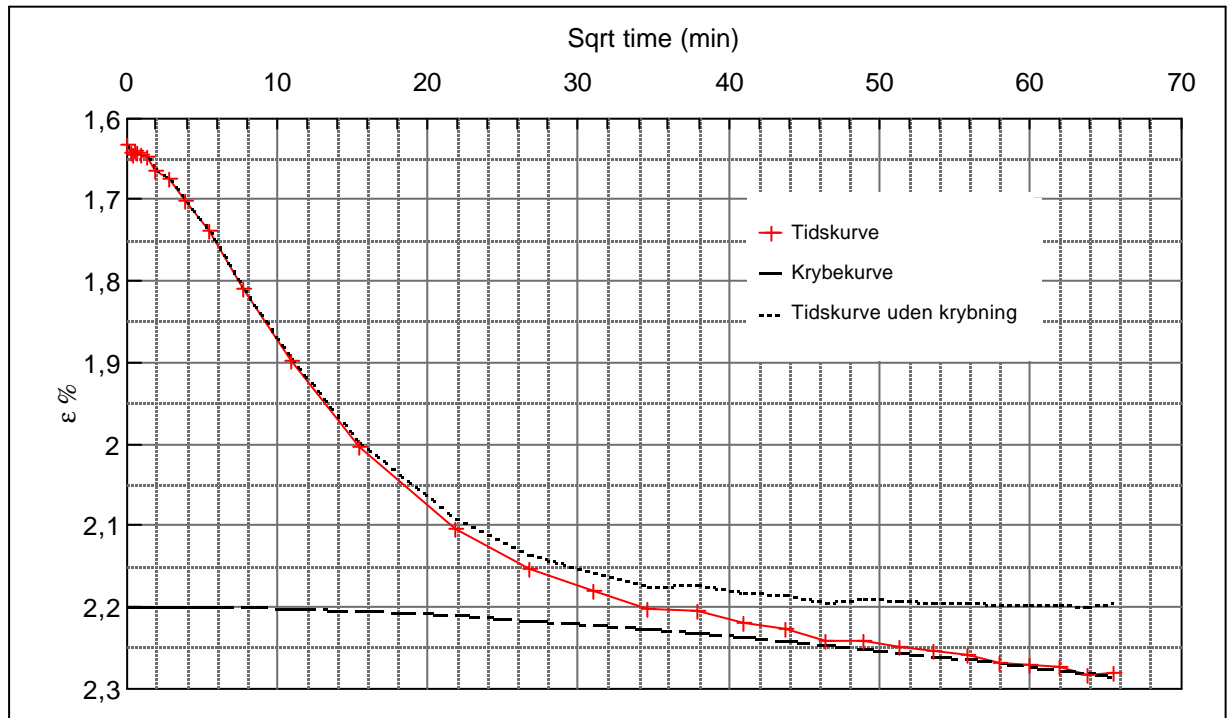
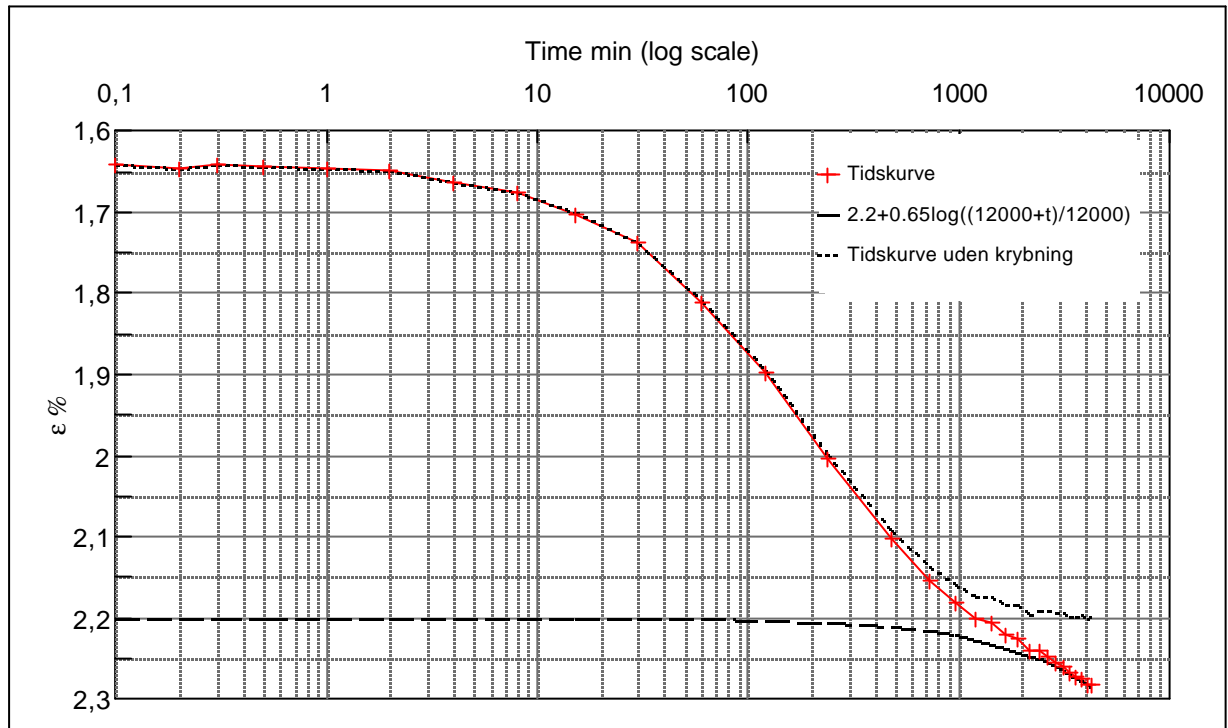
Step no 4	σ	kPa	ε	%	ε_i		tc in sec	26460
	Before	141,2	ε_0	0,88	ε_c %	1,58	K i kPa	9.913
	After	210,6	$\varepsilon_{\sim\#}$	1,63	ε_s	0,13	k10 m/sec	3,6E-11
					ε_{kryb}	0,05	ck10 m ² /sec	3,67E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 10.8 m.b.s
Lab. no:	2	Insitu stress. 110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.6
Approved:		Check:

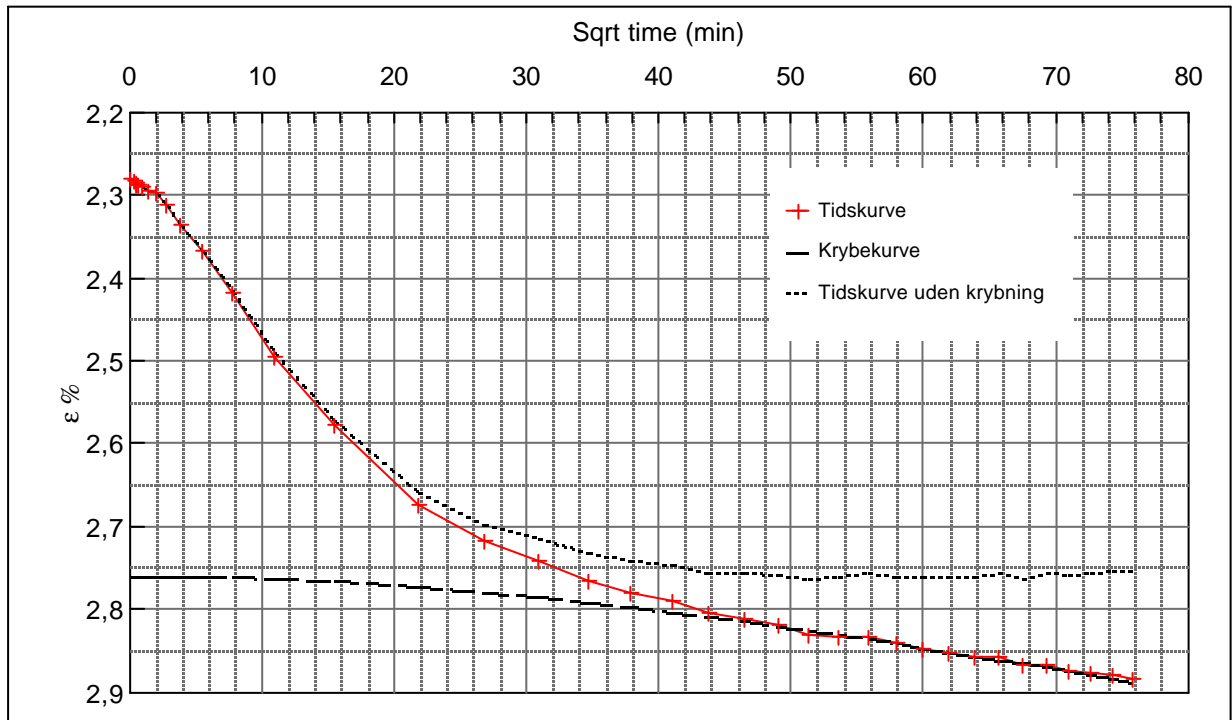
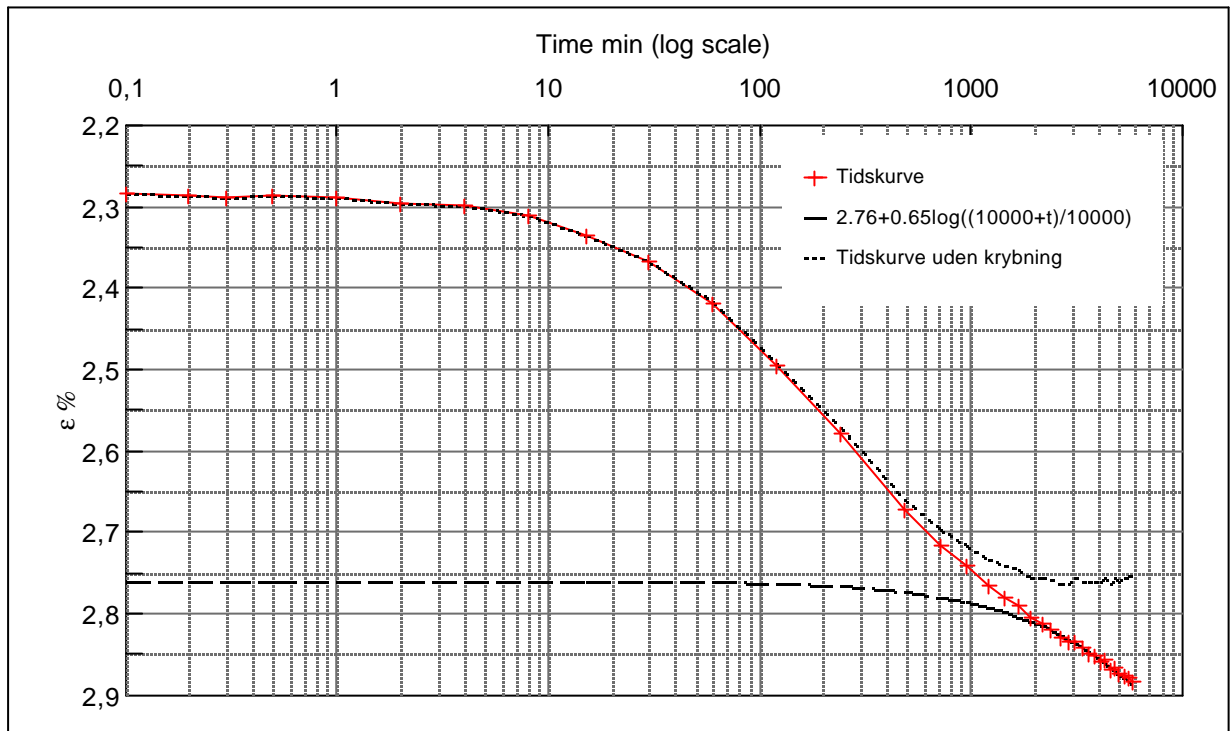
Step no 5	σ	kPa	ε	%	ε_i		tc in sec	26460
	Before	210,6	ε_0	1,63	ε_c %	2,2	K i kPa	12.246
	After	280,0	$\varepsilon_{\sim\#}$	2,28	ε_s	0,16	k10 m/sec	2,9E-11
					ε_{kryb}	0,08	ck10 m ² /sec	3,67E-08



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 10.8 m.b.s
Lab. no: 2	Insitu stress. 110 kPa

Job: Nørre Lyngby	AAU
	Encl. No 6.7
Executed: AMS/gt	Check:
Approved:	

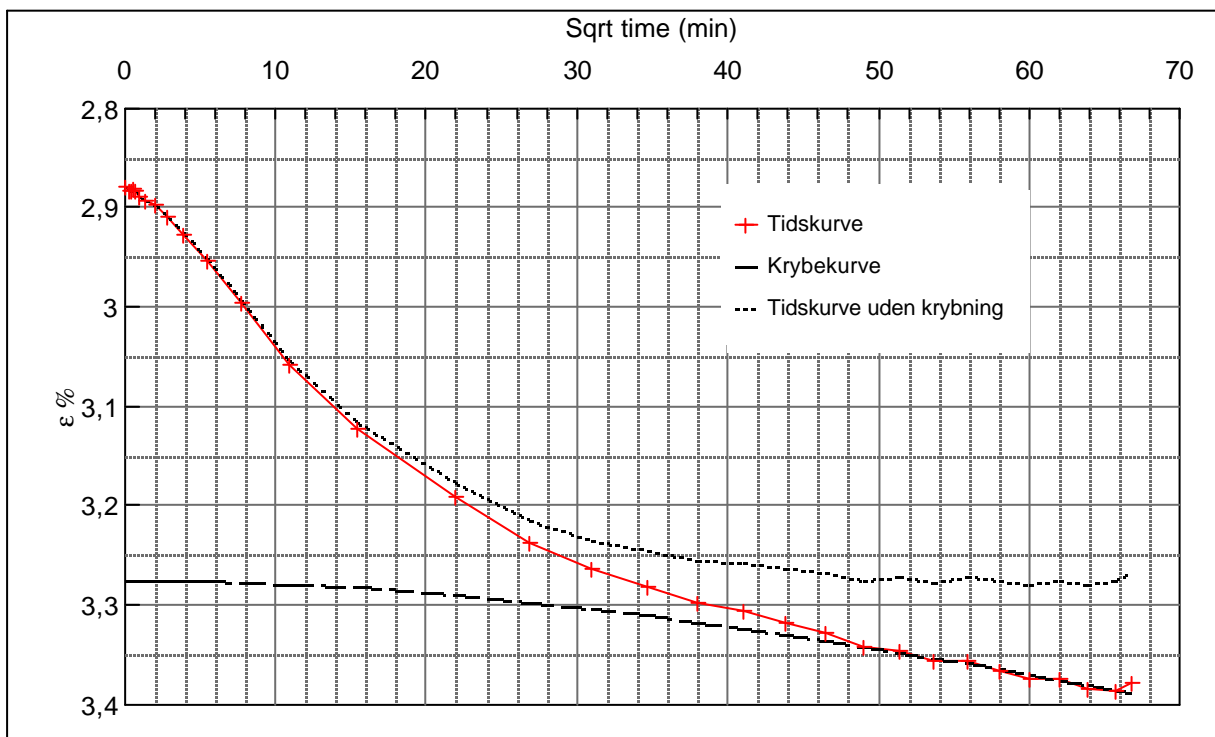
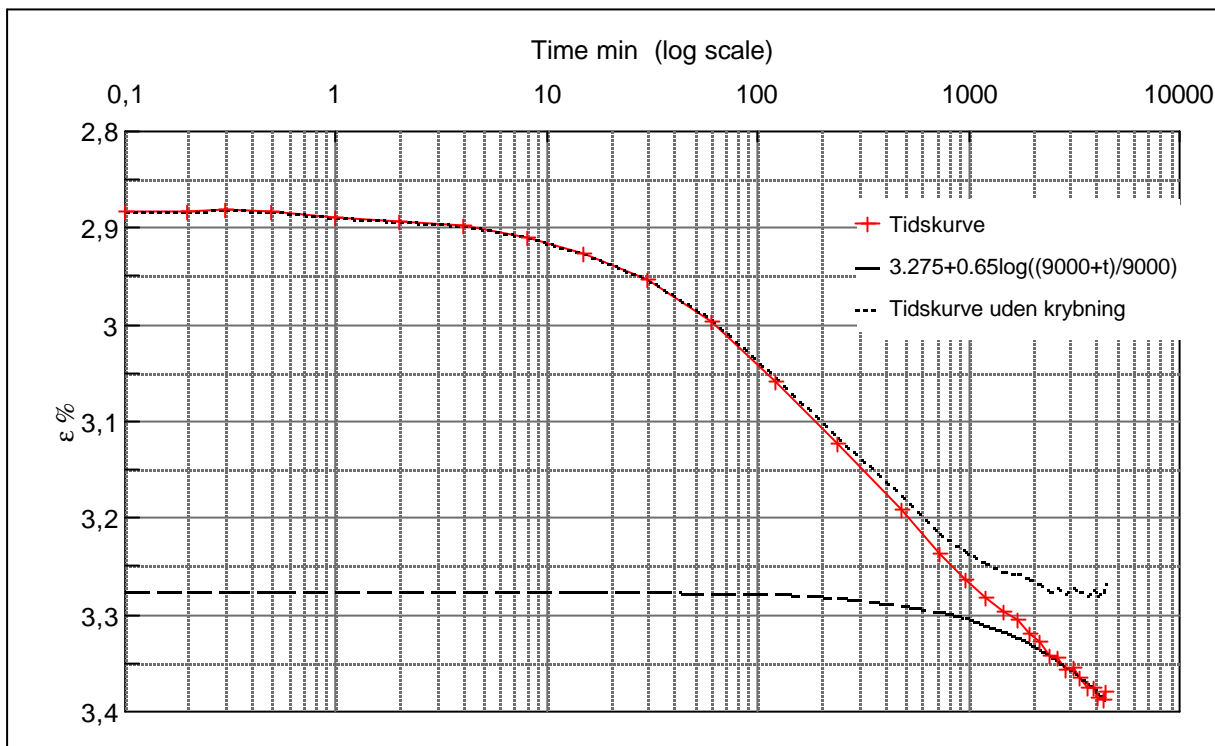
Step no 6	σ	kPa	ϵ	%	ϵ_i		tc in sec	29040
	Before	280,0	ϵ_0	2,28	ϵ_c %	2,76	K i kPa	14.457
	After	349,4	$\epsilon_{\sim\#}$	2,88	ϵ_s	0,16	k10 m/sec	2,3E-11
					ϵ_{kryb}	0,12	ck10 m ² /sec	3,34E-08



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 10.8 m.b.s
Lab. no: 2	Insitu stress. 110 kPa

Job: Nørre Lyngby	AAU
	Encl. No 6.8
Executed: AMS/gt	Check:
Approved:	

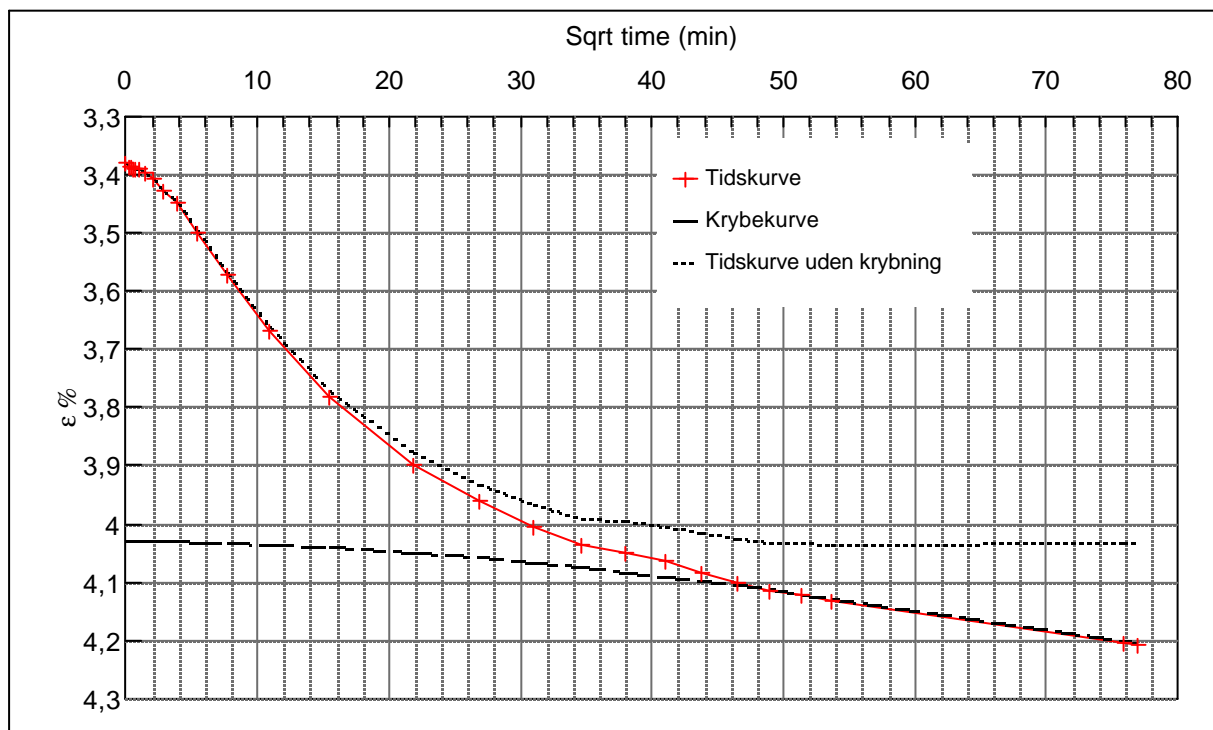
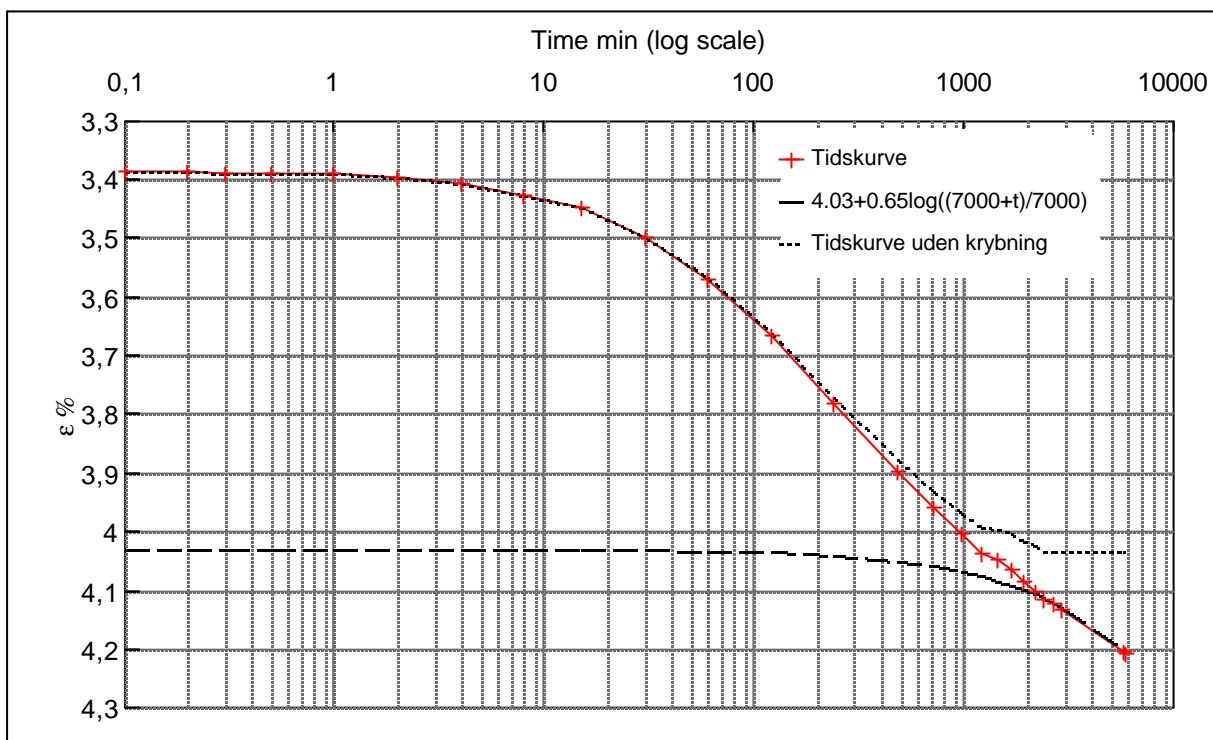
Step no 7	σ	kPa	ϵ	%	ϵ_i	tc in sec	29040
	Before	349,4	ϵ_0	2,88	ϵ_c %	K i kPa	17.567
	After	418,8	$\epsilon_{\sim\#}$	3,38	ϵ_s	k10 m/sec	1,9E-11
					ϵ_{kryb}	ck10 m ² /sec	3,34E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	10.8 m.b.s
Lab. no:	2	Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.9
Approved:		Check:

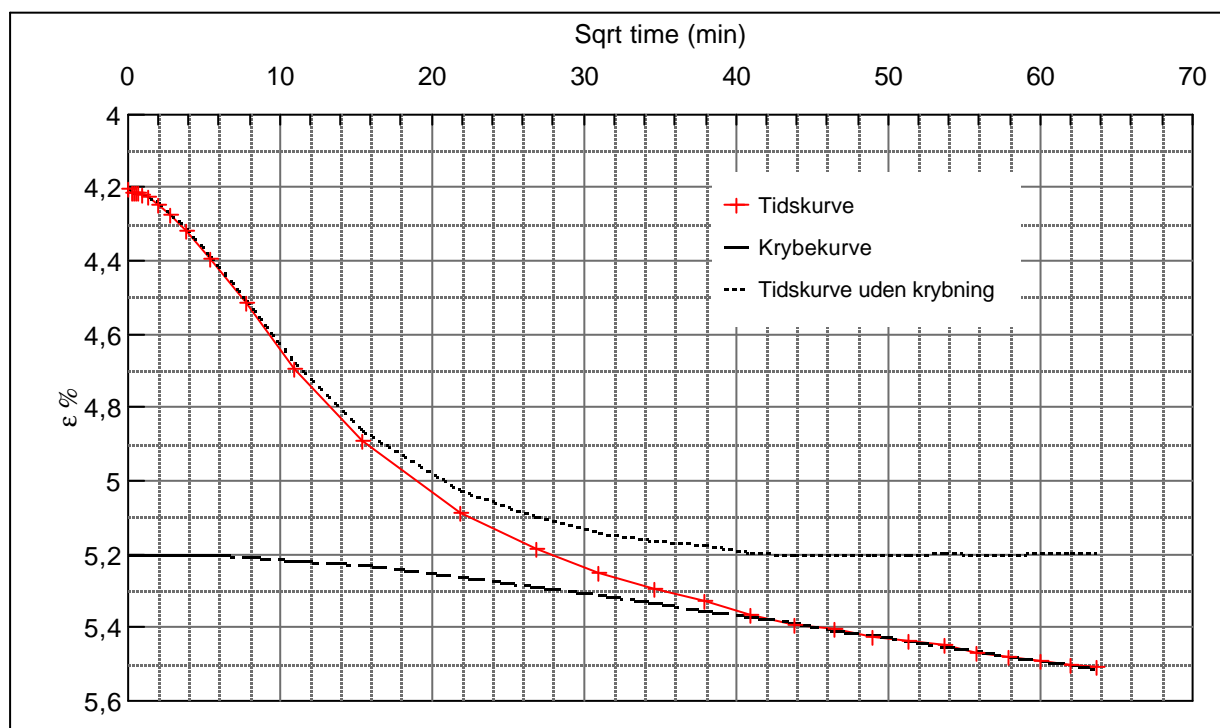
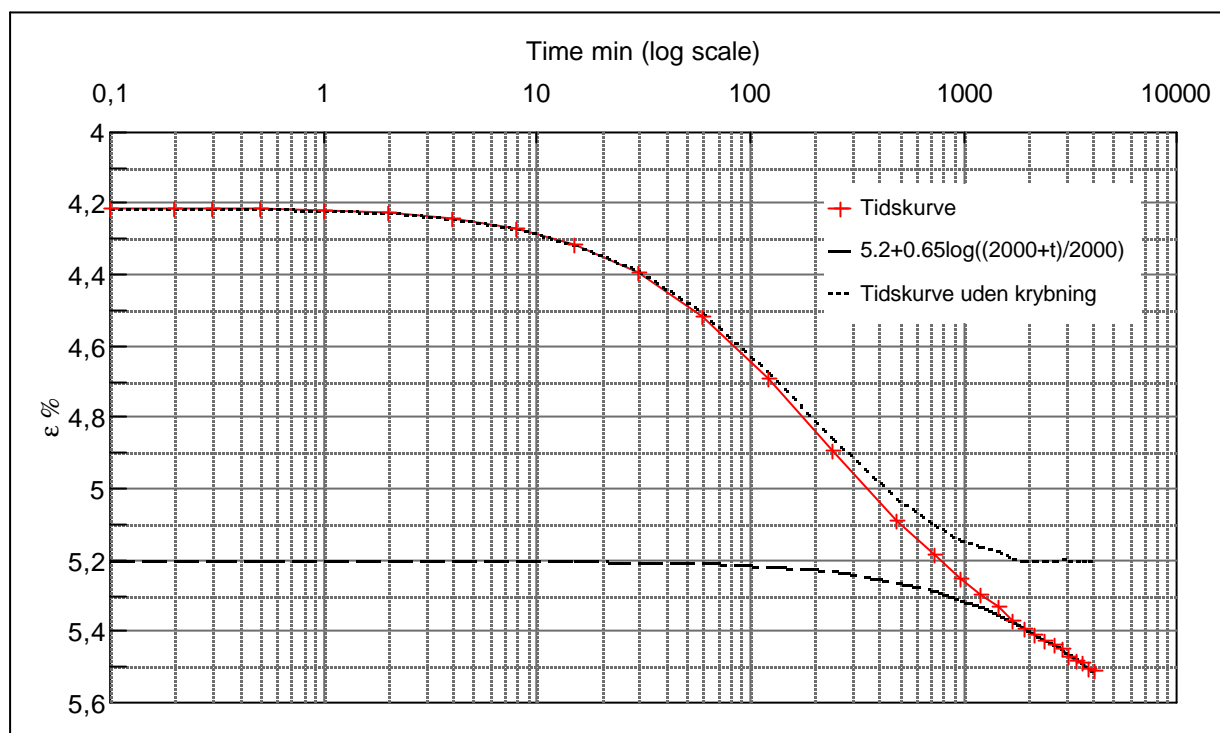
Step no 8	σ	kPa	ε	%	ε_i	tc in sec	31740
	Before	418,8	ε_0	3,38	ε_c %	K i kPa	16.013
	After	522,9	$\varepsilon_{-#}$	4,21	ε_s	k10 m/sec	1,9E-11
					ε_{kryb}	ck10 m ² /sec	3,06E-08



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 10.8 m.b.s
Lab. no: 2	Insitu stress. 110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.10
Approved:		Check:

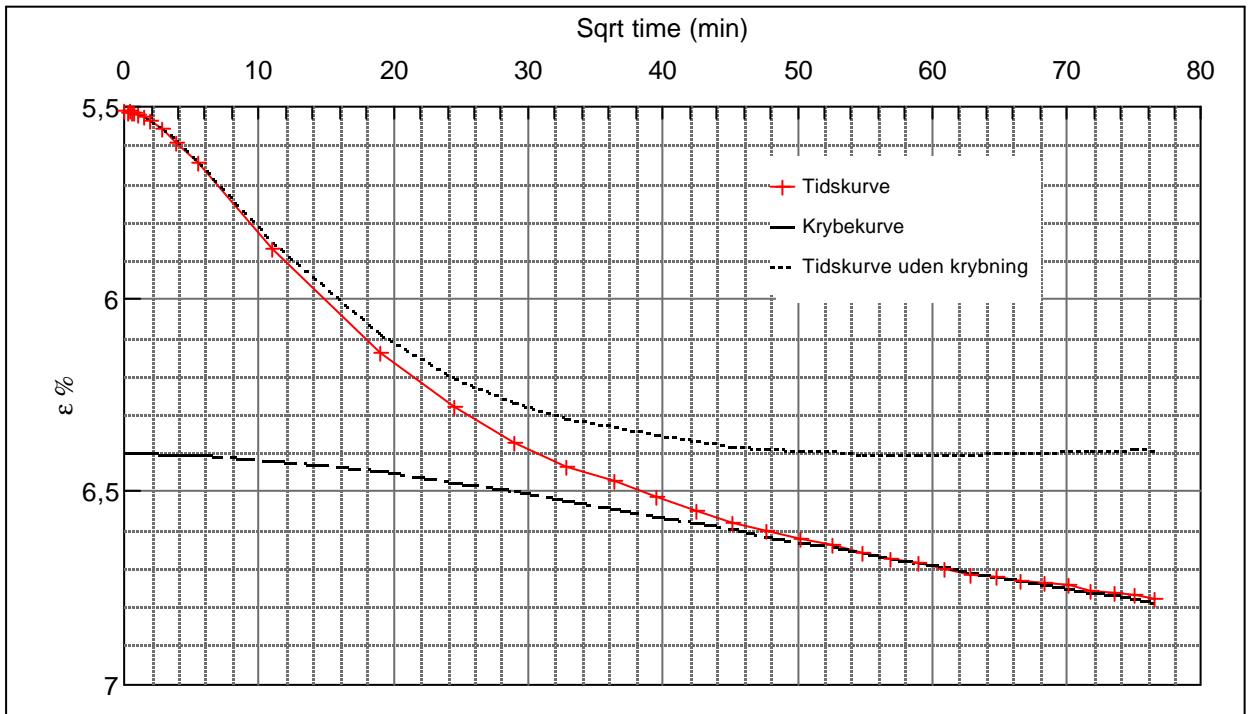
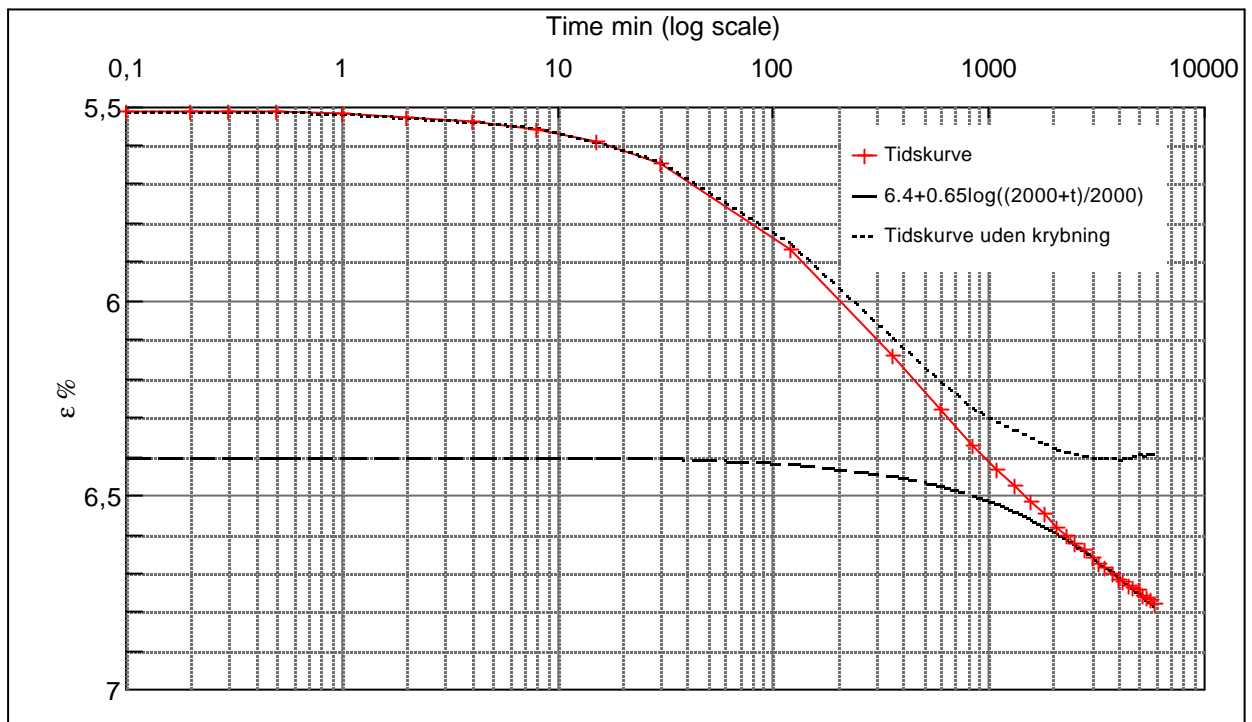
Step no 9	σ	kPa	ε	%	ε_i	tc in sec	24000
	Before	522,9	ε_0	4,21	ε_c %	K i kPa	17.464
	After	696,3	$\varepsilon_{\sim\#}$	5,51	ε_s	k10 m/sec	2,3E-11
					ε_{kryb}	ck10 m ² /sec	4,04E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	10.8 m.b.s
Lab. no:	2	Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.11
Approved:		Check:

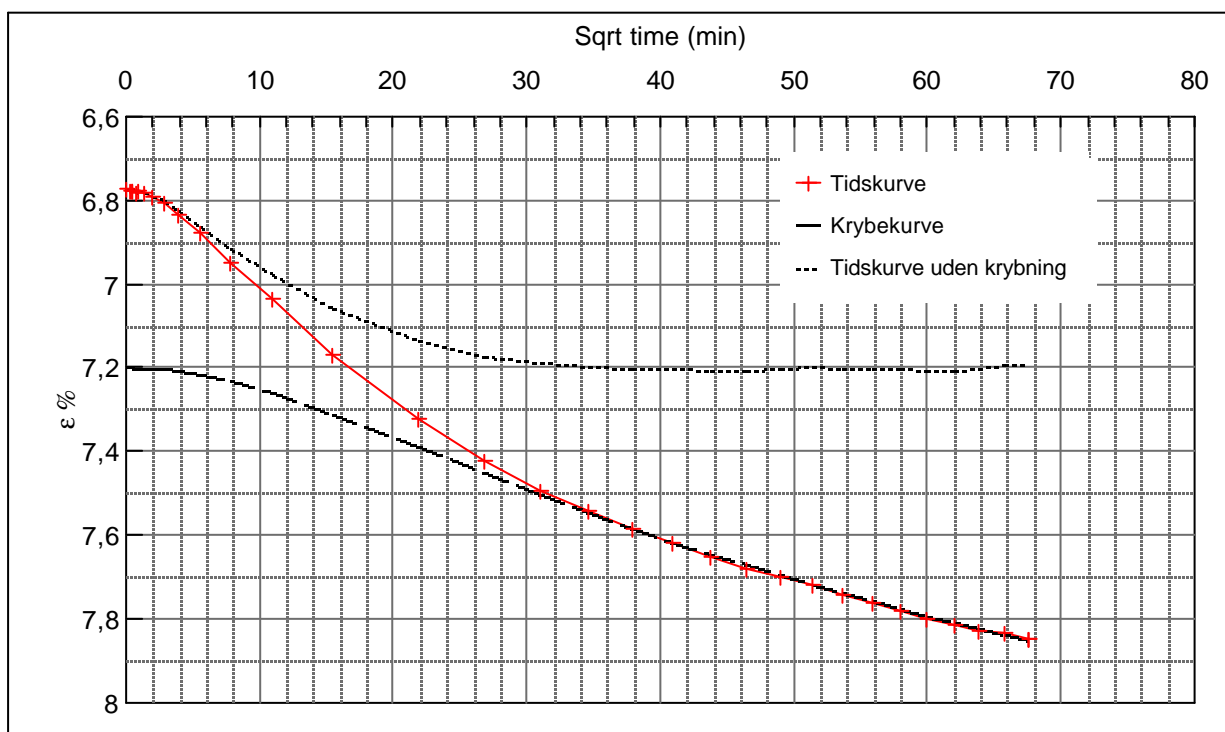
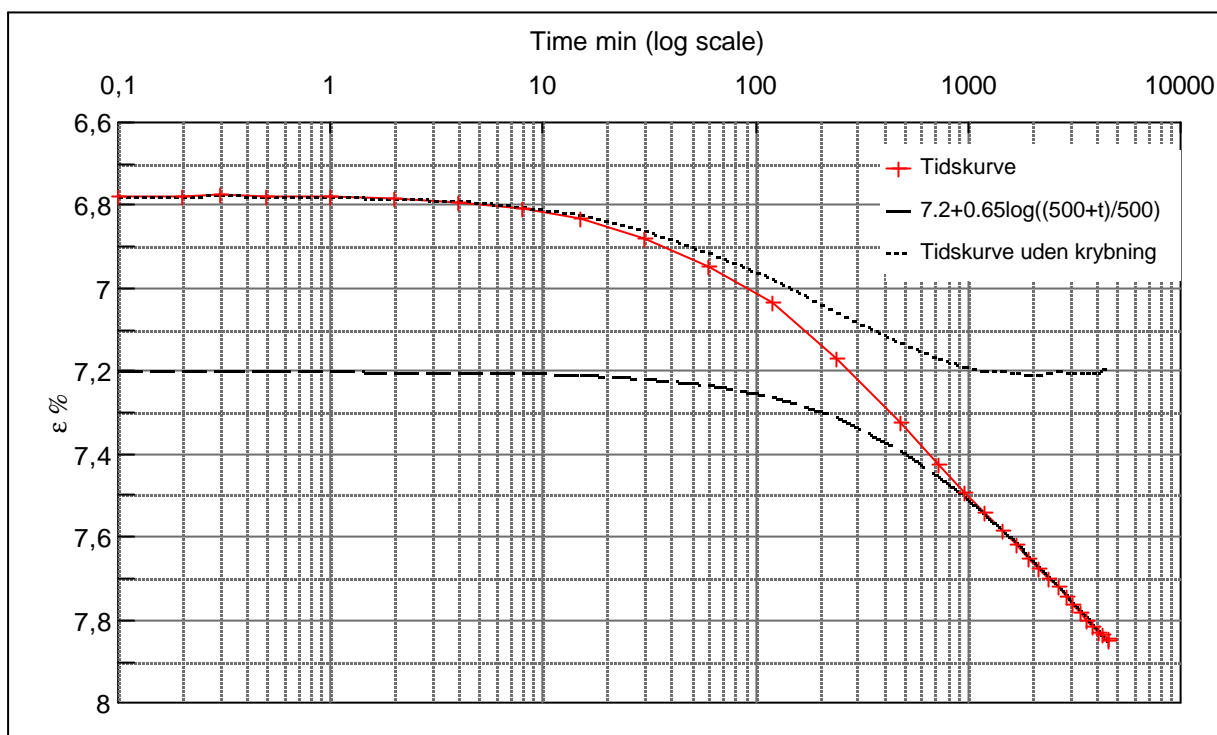
Step no 10	σ	kPa	ϵ	%	ϵ_i	tc in sec	34560
	Before	696,3	ϵ_0	5,51	ϵ_c %	K i kPa	19.456
	After	869,8	$\epsilon_{\sim\#}$	6,78	ϵ_s	k10 m/sec	1,4E-11
					ϵ_{kryb}	ck10 m ² /sec	2,81E-08



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 10.8 m.b.s
Lab. no: 2	Insitu stress. 110 kPa

Job: Nørre Lyngby	AAU
	Encl. No 6.12
Executed: AMS/gt	Check:
Approved:	

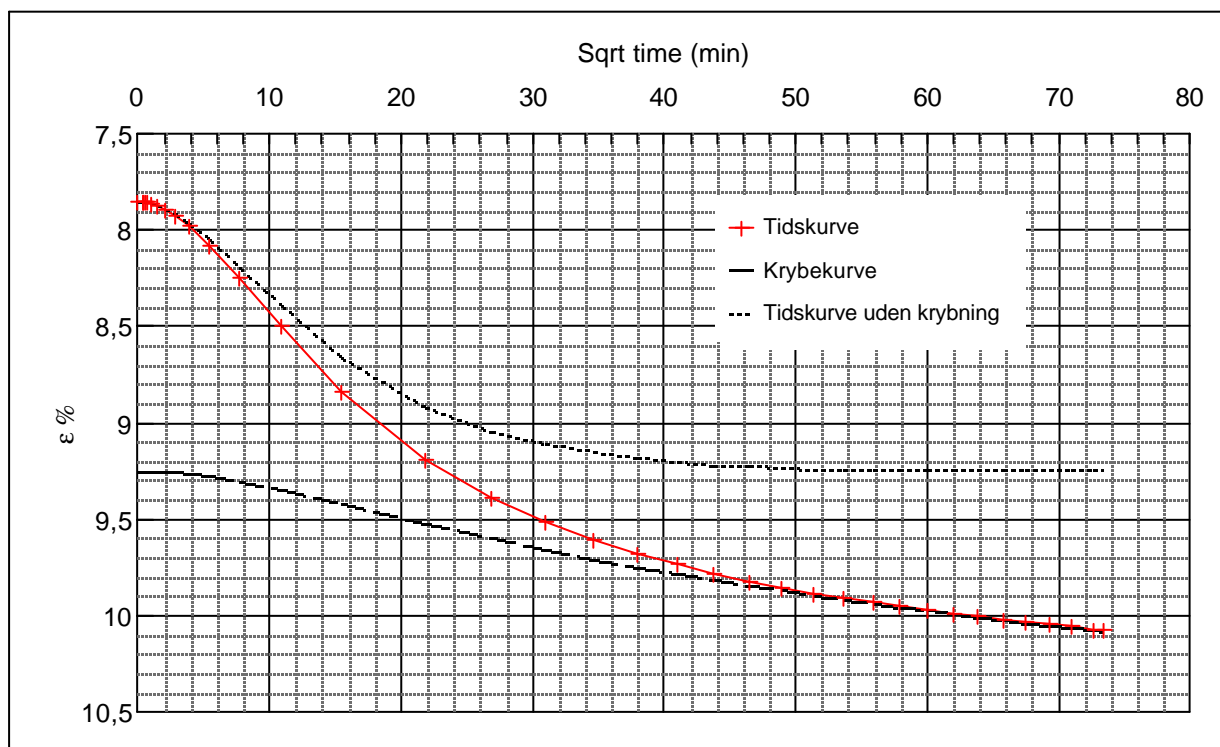
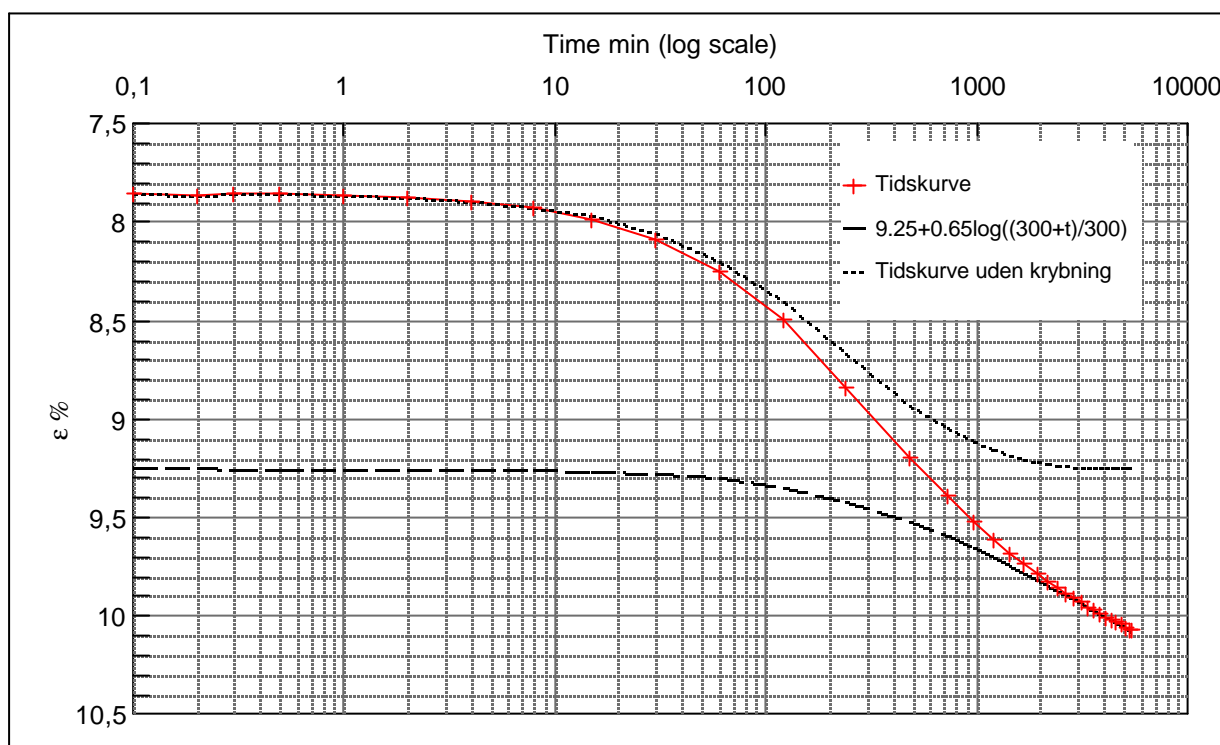
Step no 11	σ	kPa	ε	%	ε_i		tc in sec	17340
	Before	869,8	ε_0	6,77	ε_c %	7,2	K i kPa	40.659
	After	1.043,3	$\varepsilon_{-#}$	7,85	ε_s	0,56	k10 m/sec	1,4E-11
					ε_{kryb}	0,65	ck10 m ² /sec	5,59E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 10.8 m.b.s
Lab. no:	2	Insitu stress. 110 kPa

Job: Nørre Lyngby		AAU
		Encl. No 6.13
Executed:	AMS/gt	Check:
Approved:		

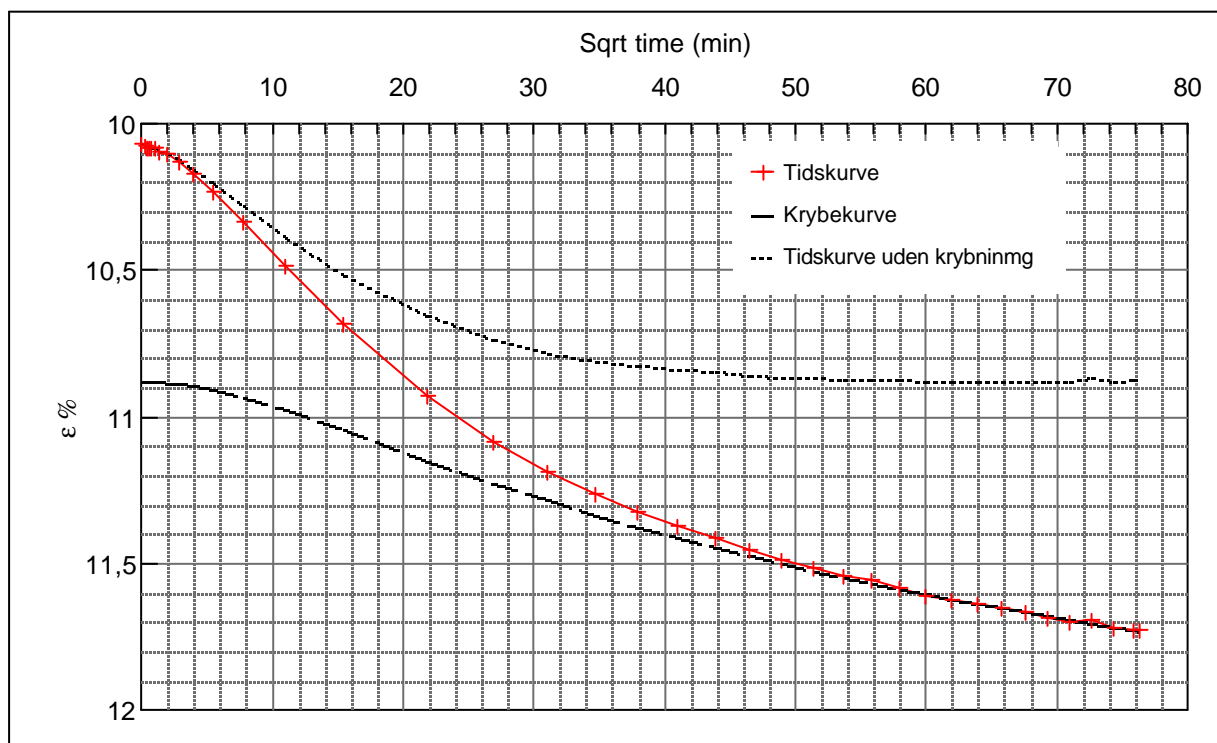
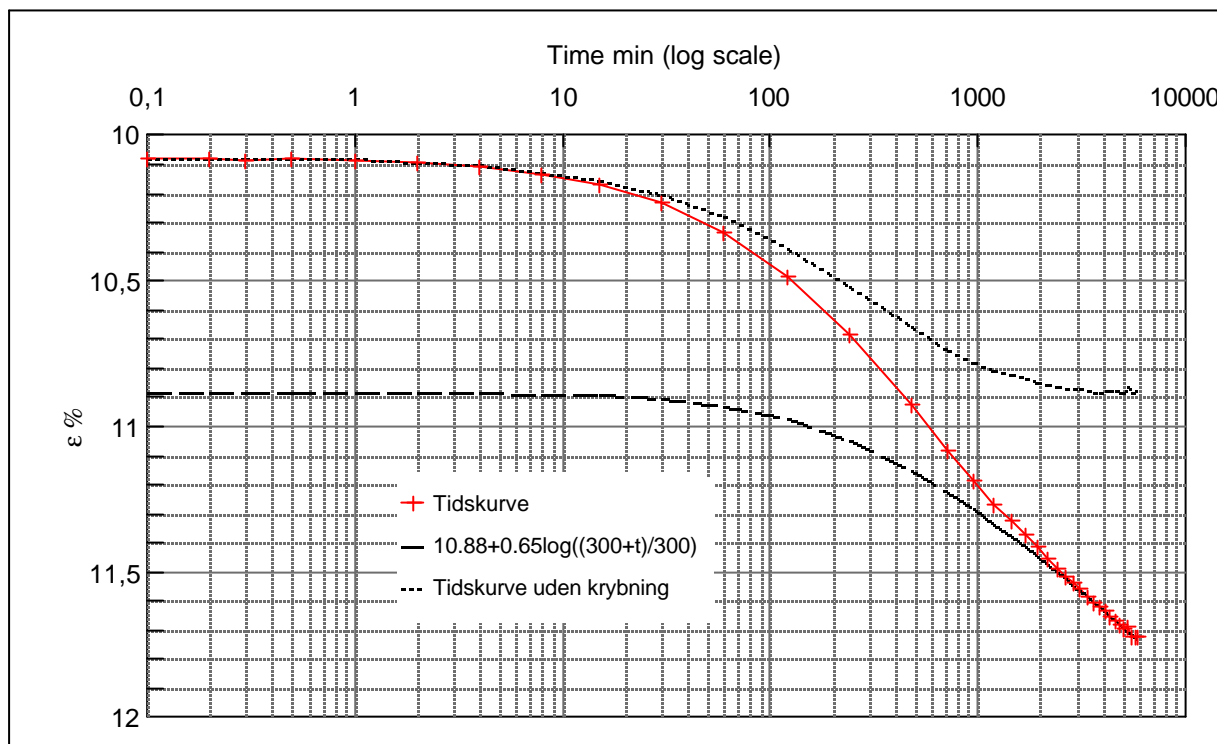
Step no 12	σ	kPa	ε	%	ε_i		tc in sec	26460
	Before	1.043,3	ε_0	7,85	ε_c %	9,25	K i kPa	24.753
	After	1.390,3	$\varepsilon_{\sim\#}$	10,07	ε_s	0,65	k10 m/sec	1,5E-11
					ε_{kryb}	0,82	ck10 m^2 /sec	3,67E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	10.8 m.b.s
Lab. no:	2	Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
		Encl. No 6.14
Executed:	AMS/gt	Check:
Approved:		

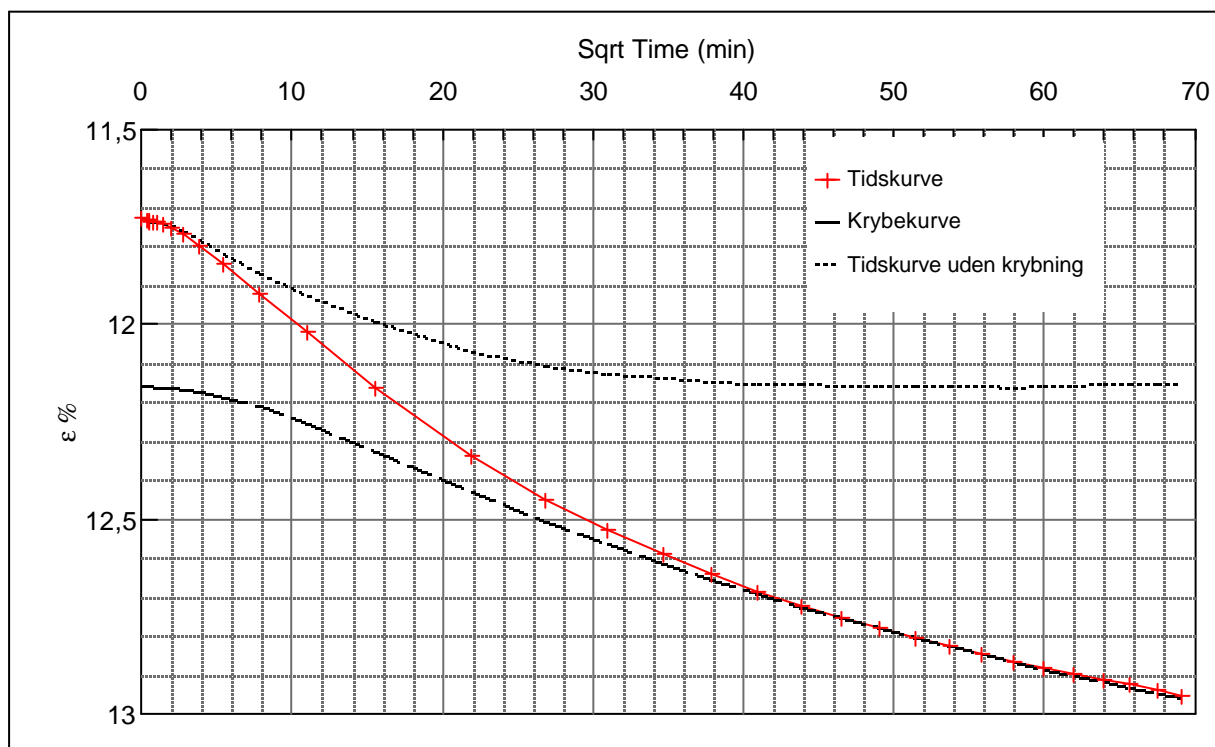
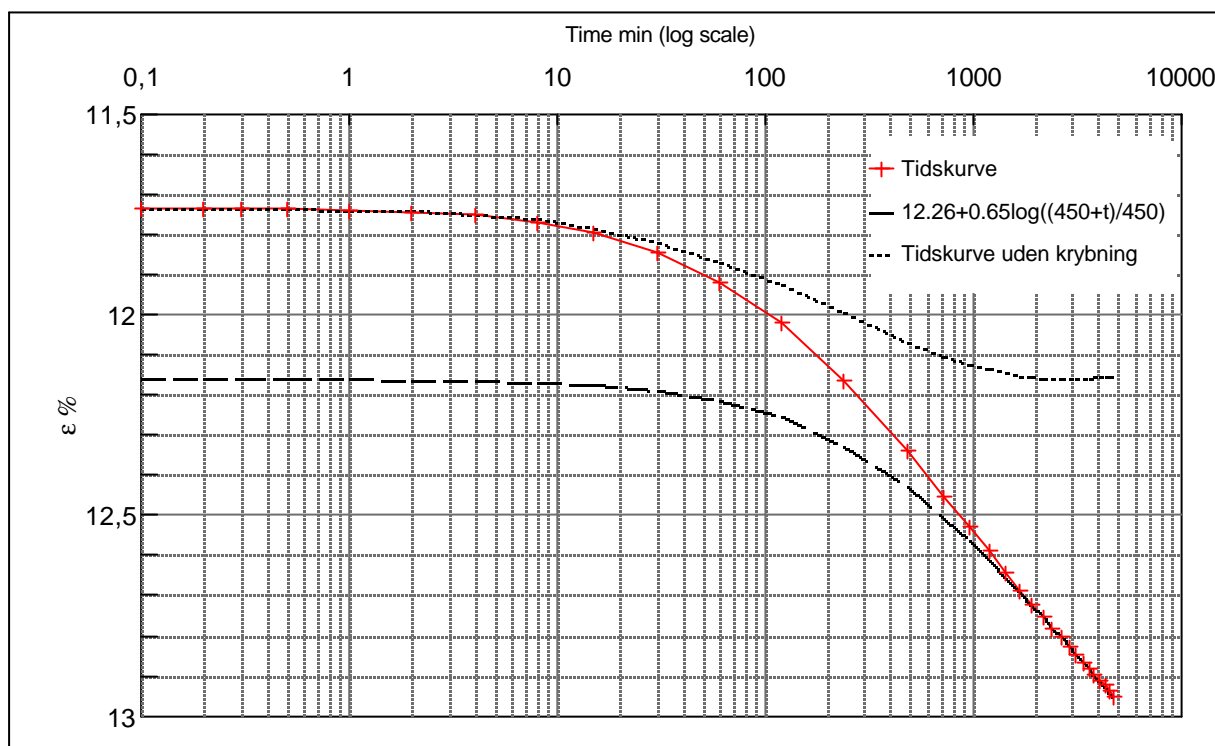
Step no 13	σ	kPa	ε	%	ε_i	tc in sec	24000
	Before	1.390,3	ε_0	10,07	ε_c %	K i kPa	42.659
	After	1.737,2	$\varepsilon_{\sim\#}$	11,73	ε_s	k10 m/sec	9,3E-12
					ε_{kryb}	ck10 m^2/sec	4,04E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 10.8 m.b.s
Lab. no:	2	Insitu stress. 110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.15
Approved:		Check:

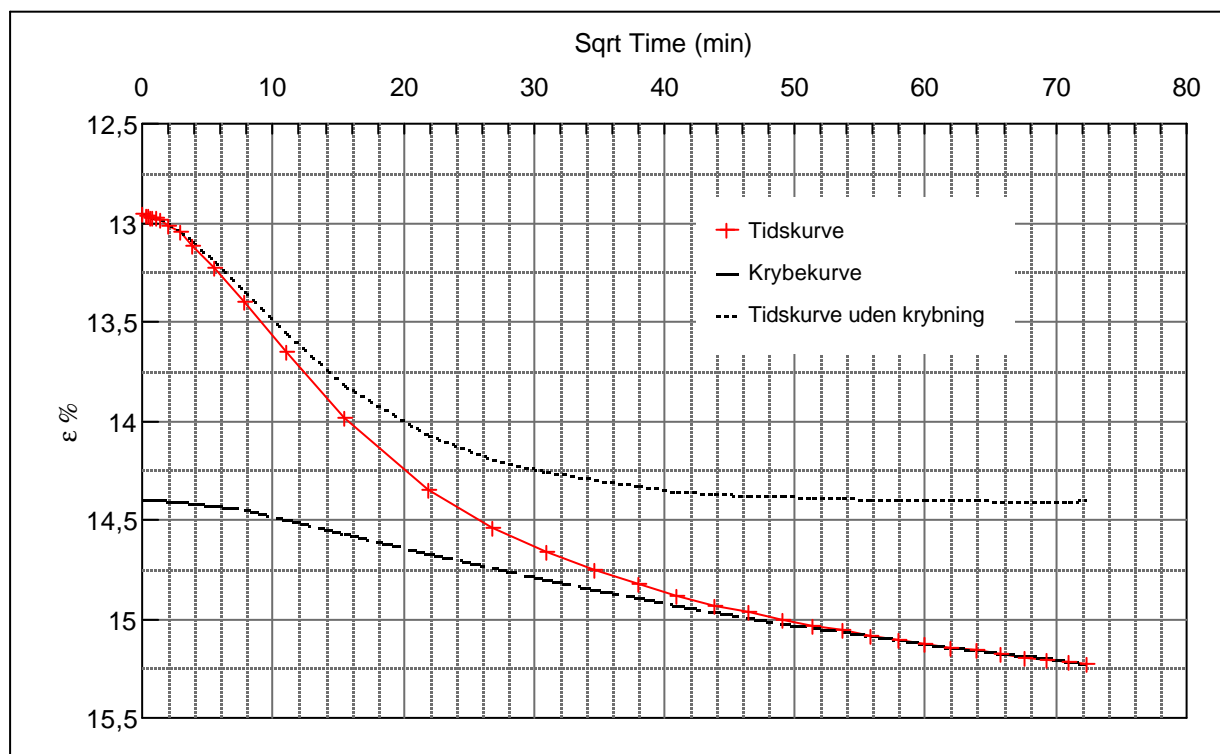
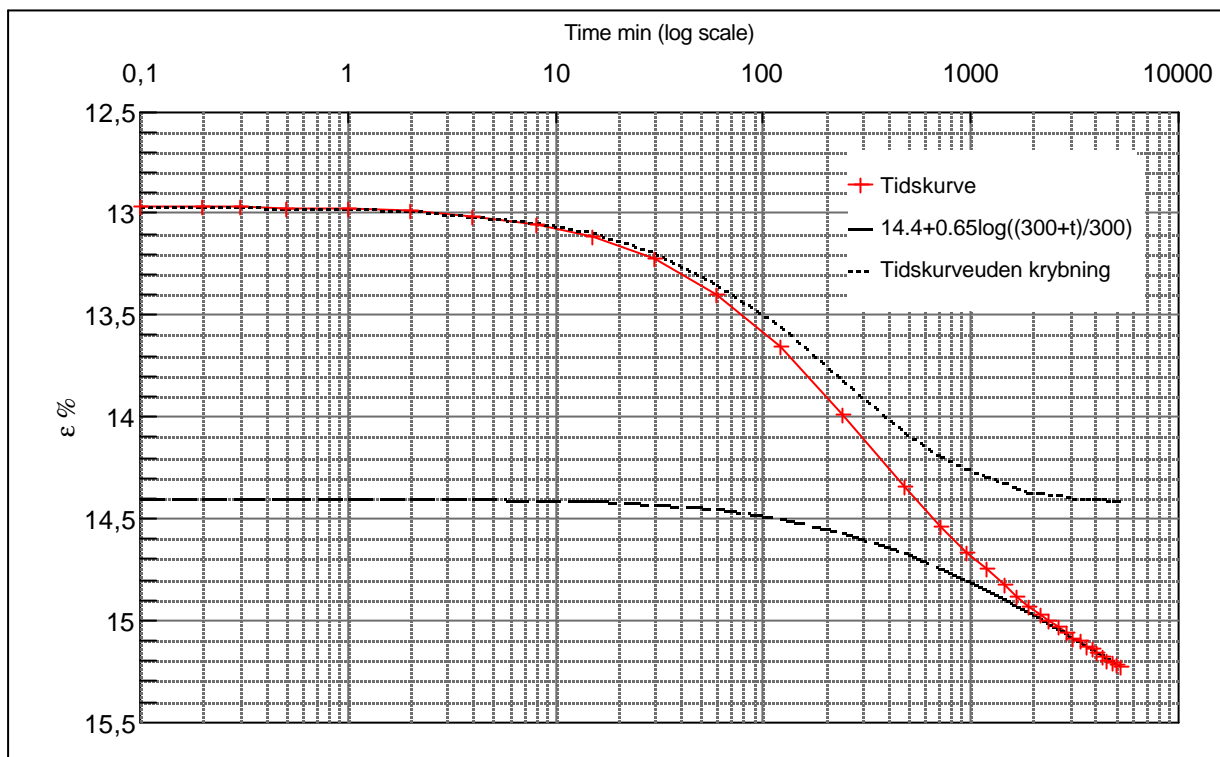
Step no 14	σ	kPa	ϵ	%	ϵ_i		tc in sec	15360
	Before	1.737,2	ϵ_0	11,73	ϵ_c %	12,16	K i kPa	79.760
	After	2.084,2	$\epsilon_{\sim\#}$	12,95	ϵ_s	0,65	k10 m/sec	7,8E-12
					ϵ_{kryb}	0,79	ck10 m^2/sec	6,31E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 10.8 m.b.s
Lab. no:	2	Insitu stress. 110 kPa

Job: Nørre Lyngby		AAU
		Encl. No 6.16
Executed:	AMS/gt	Check:
Approved:		

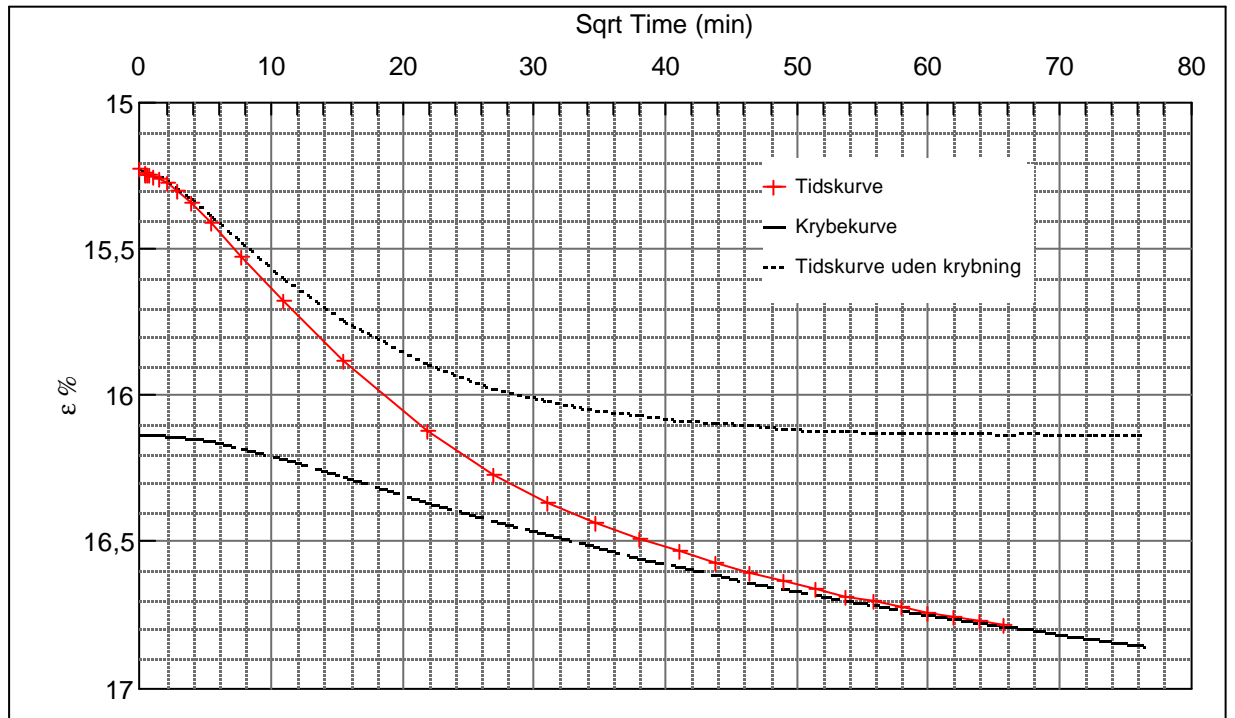
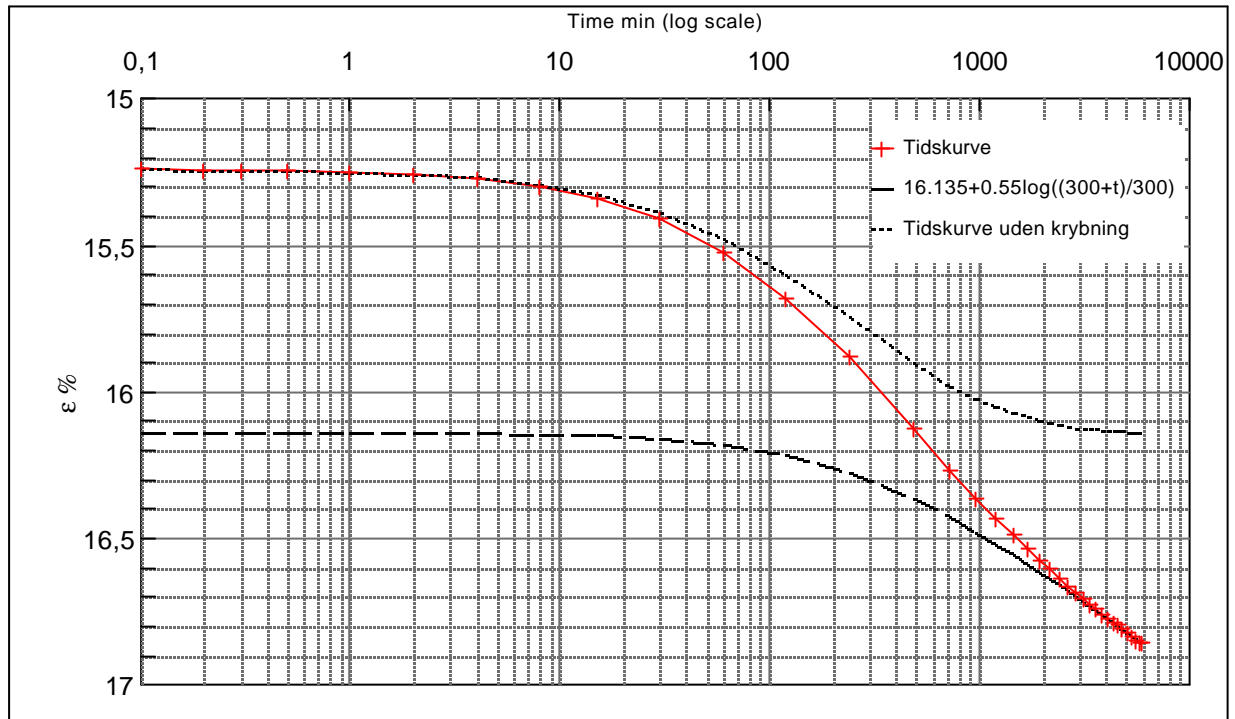
Step no 15	σ	kPa	ε	%	ε_i		tc in sec	26460
	Before	2.084,2	ε_0	12,95	ε_c %	14,4	K i kPa	47.911
	After	2.778,1	$\varepsilon_{-#}$	15,23	ε_s	0,65	k10 m/sec	7,5E-12
					ε_{kryb}	0,83	ck10 m ² /sec	3,67E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	10.8 m.b.s
Lab. no:	2	Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.17
Approved:		Check:

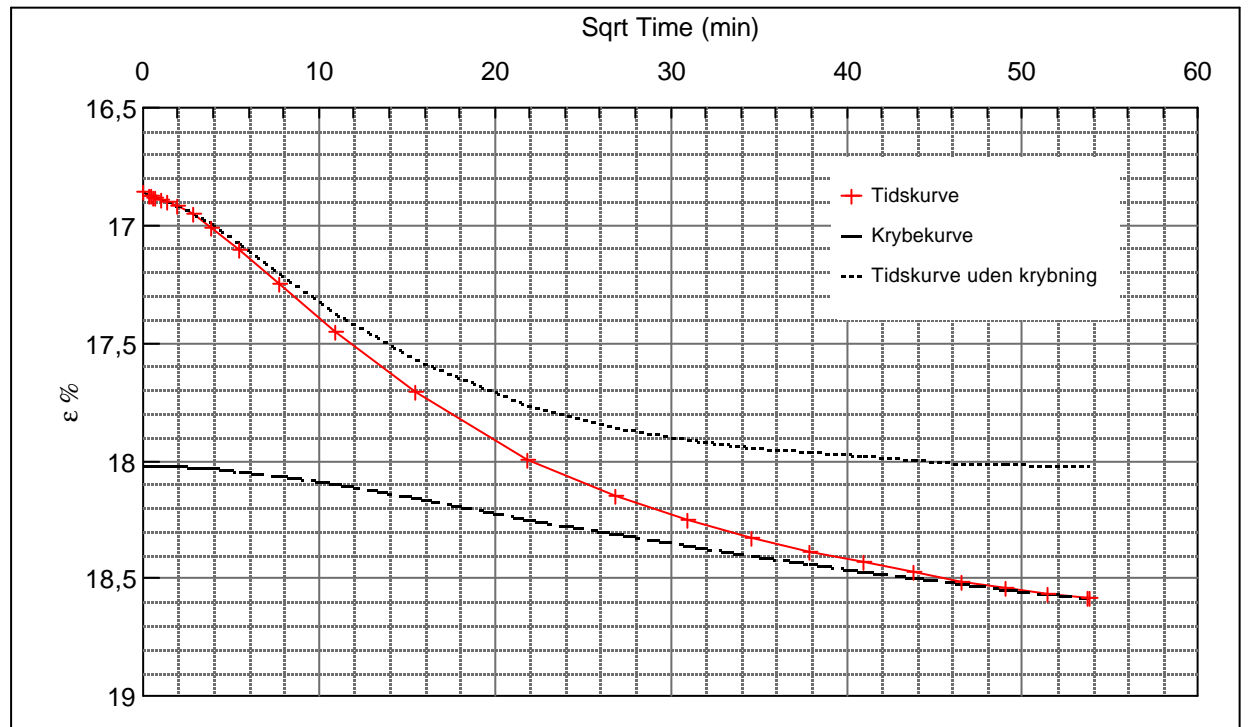
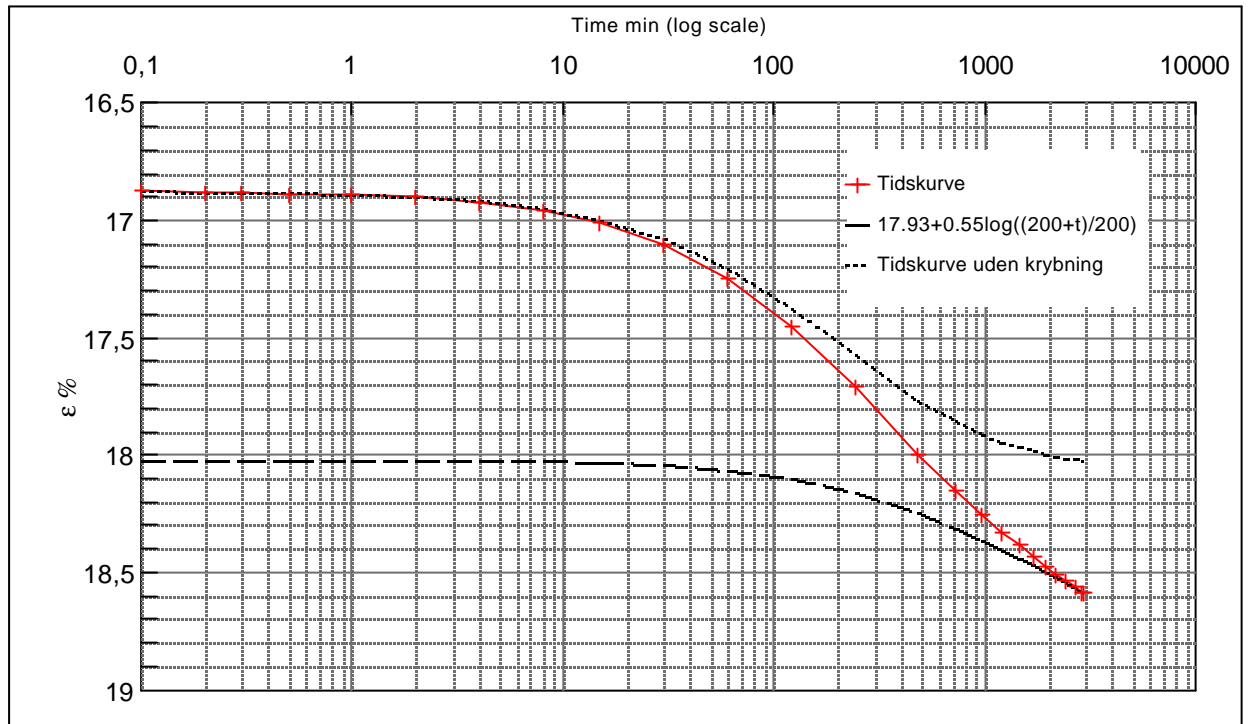
Step no 16	σ	kPa	ε	%	ε_i		tc in sec	26460
	Before	2.778,1	ε_0	15,23	ε_c %	16,14	K i kPa	76.394
	After	3.472,0	$\varepsilon_{\sim\#}$	16,85	ε_s	0,55	k10 m/sec	4,7E-12
					ε_{kryb}	0,72	ck10 m ² /sec	3,67E-08



Material: Clay, marine, Lateglacial	
Bor no :	1
Lab. no:	2
Depth:	10.8 m.b.s
Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.18
Approved:		Check:

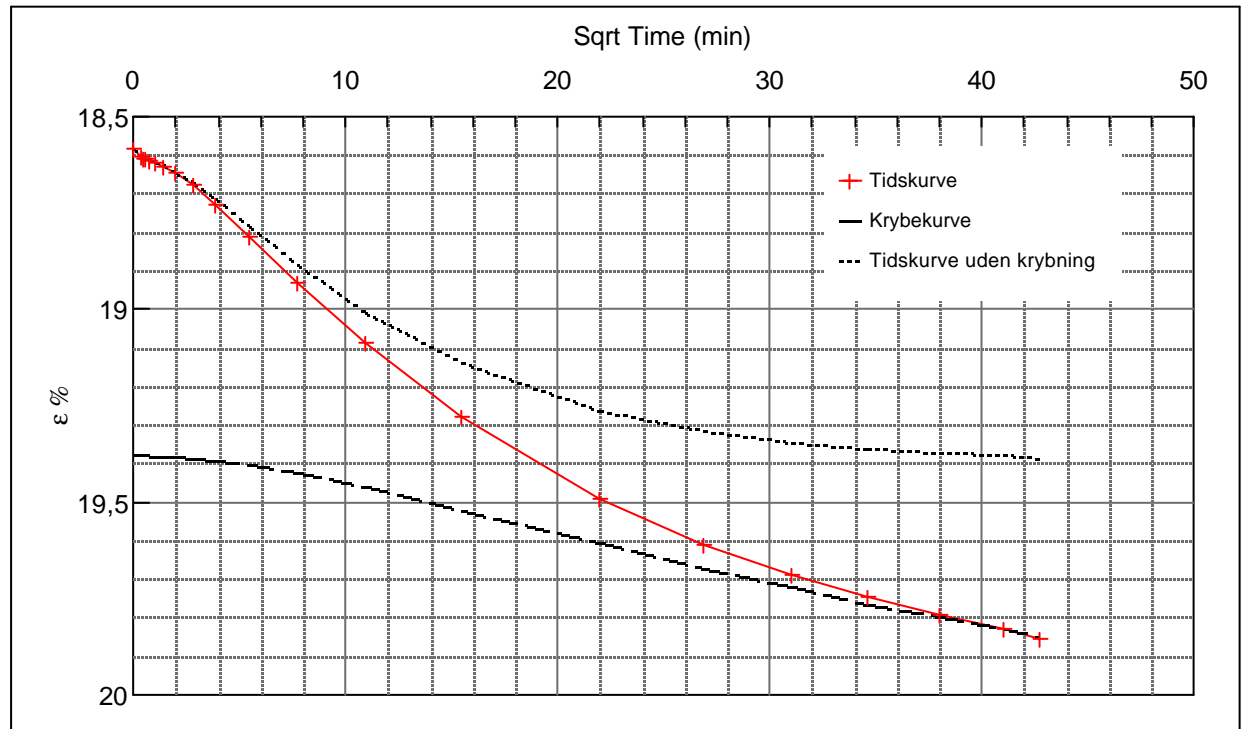
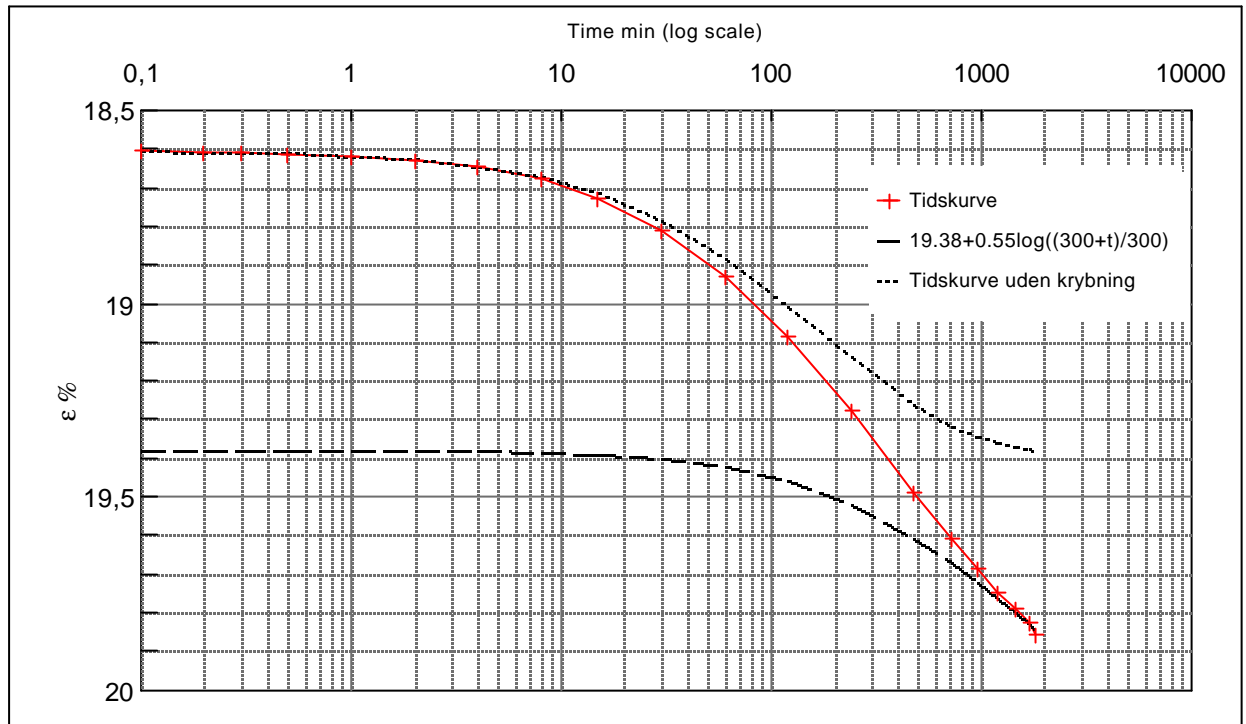
Step no 17	σ	kPa	ϵ	%	ϵ_i		t_c in sec	25215
	Before	3.472,0	ϵ_0	16,86	ϵ_c %	18,02	K_i kPa	89.473
	After	4.512,9	$\epsilon_{\sim\#}$	18,58	ϵ_s	0,55	k_{10} m/sec	4,2E-12
					ϵ_{kryb}	0,56	ck_{10} m ² /sec	3,85E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	10.8 m.b.s
Lab. no:	2	Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 6.19
Approved:		Check:

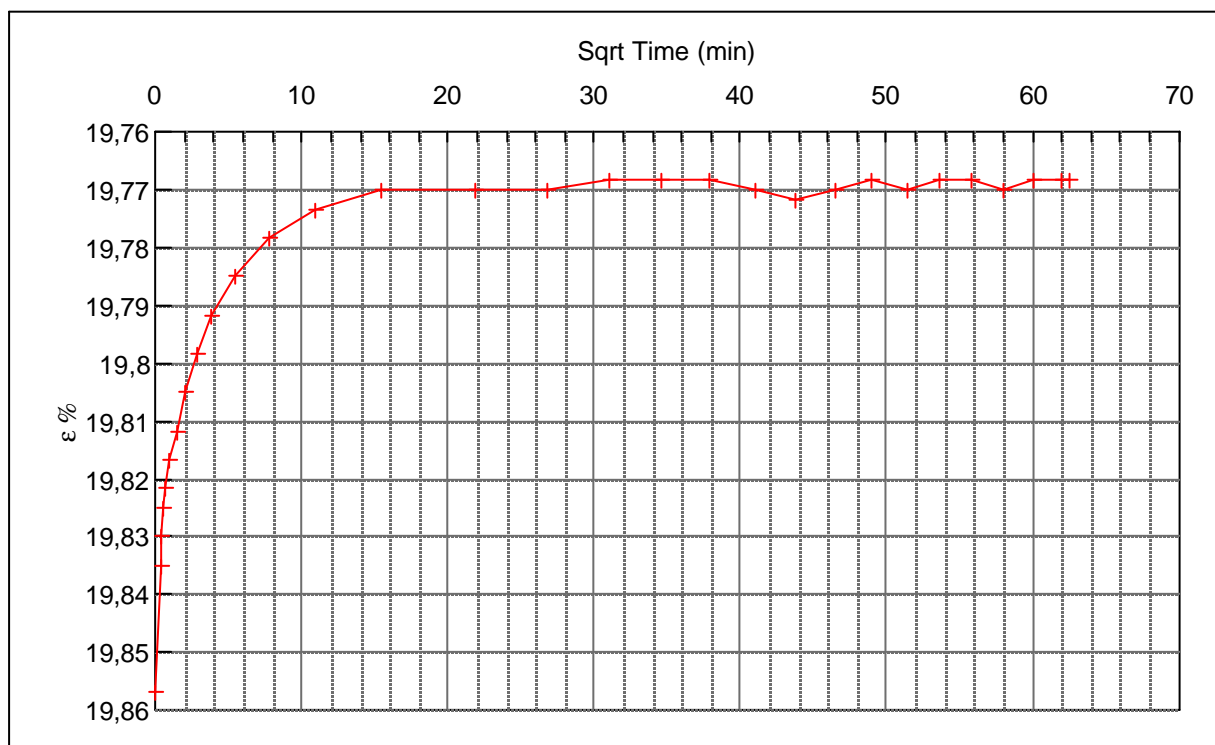
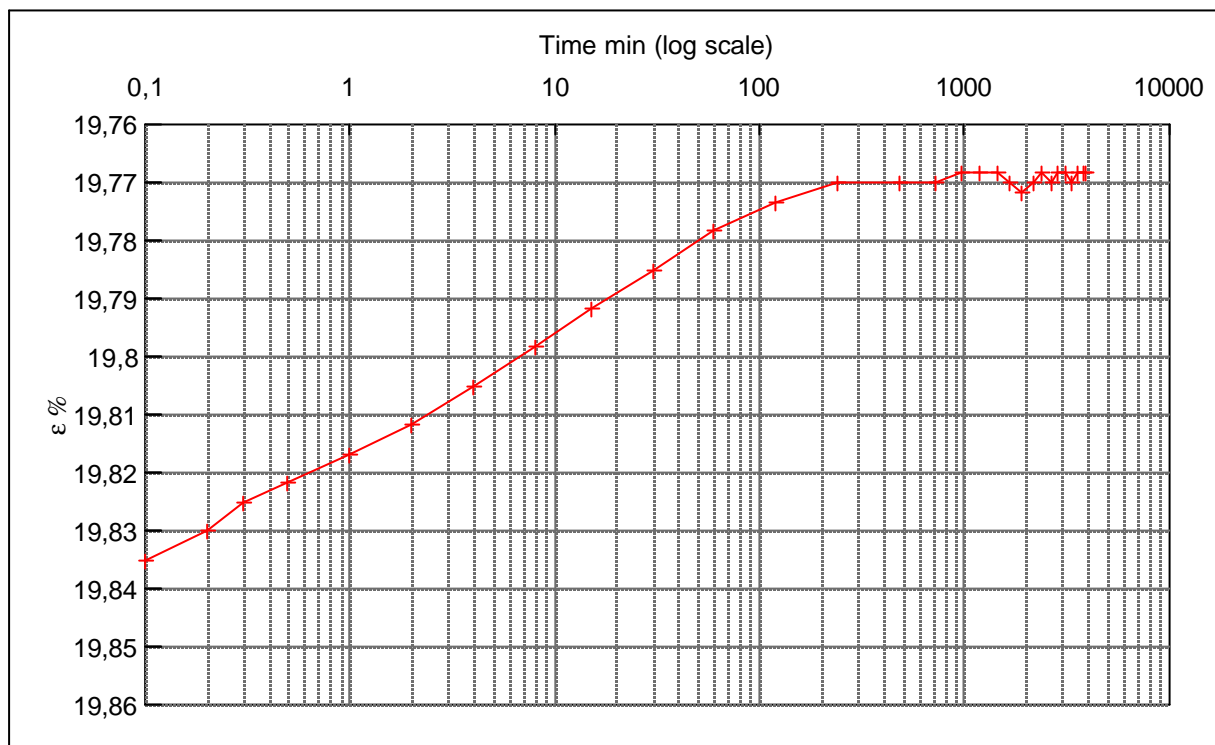
Step no 18	σ	kPa	ε	%	ε_i	tc in sec	17340
	Before	4.512,9	ε_0	18,59	ε_c %	K i kPa	130.927
	After	5.553,8	$\varepsilon_{\sim\#}$	19,86	ε_s	k10 m/sec	4,2E-12
					ε_{kryb}	ck10 m ² /sec	5,59E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 10.8 m.b.s
Lab. no:	2	Insitu stress. 110 kPa

Job: Nørre Lyngby		AAU
		Encl. No 6.20
Executed:	AMS/gt	Check:
Approved:		

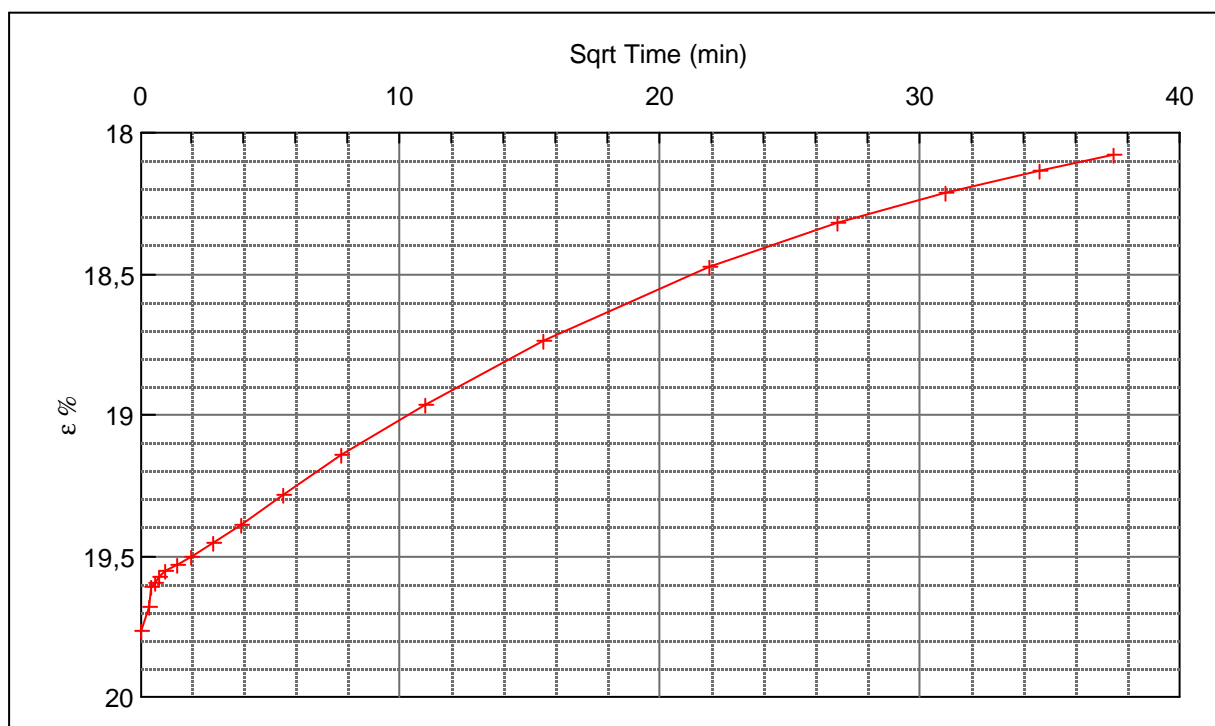
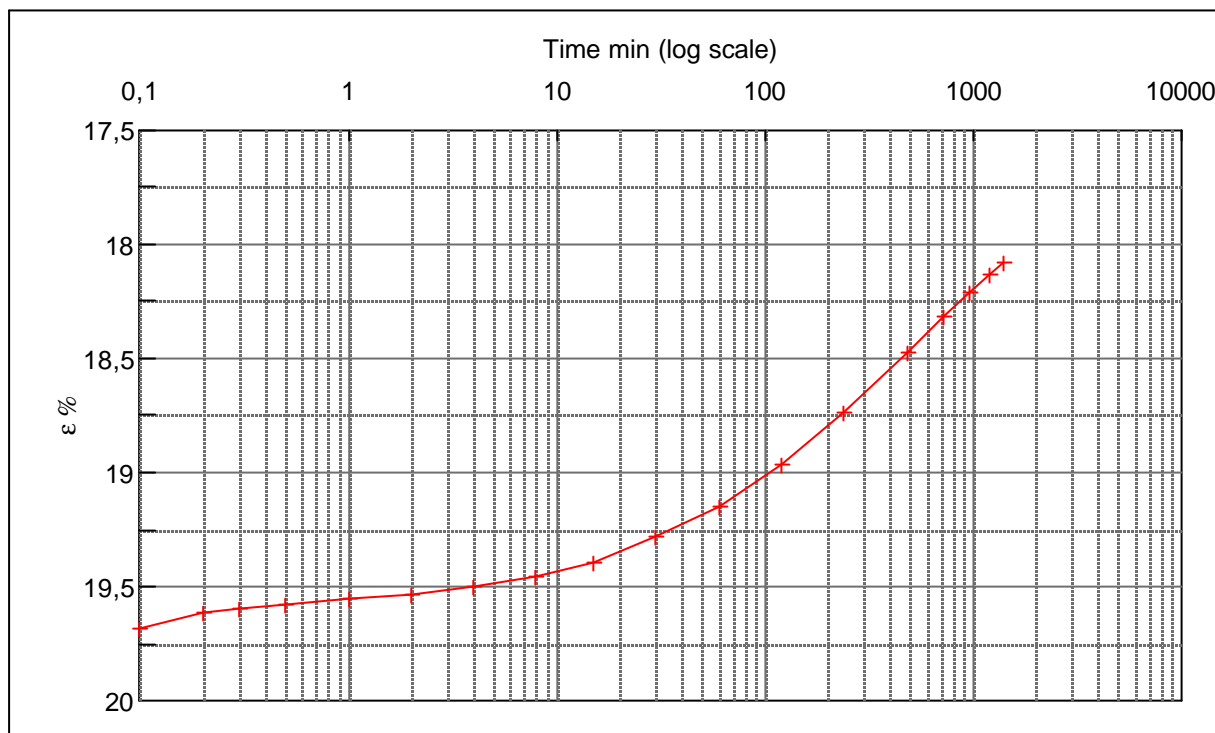
Step no 19	σ	kPa	ϵ	%	ϵ_i	tc in sec	240
	Before	5.553,8	ϵ_0	19,86	ϵ_c %	K i kPa	2.347.835
	After	3.472,0	$\epsilon_{\sim\#}$	19,77	ϵ_s	k10 m/sec	1,7E-11
					ϵ_{kyb}	ck10 m^2 /sec	4,04E-06



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	10.8 m.b.s
Lab. no:	2	Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
		Encl. No 6.21
Executed:	AMS/gt	Check:
Approved:		

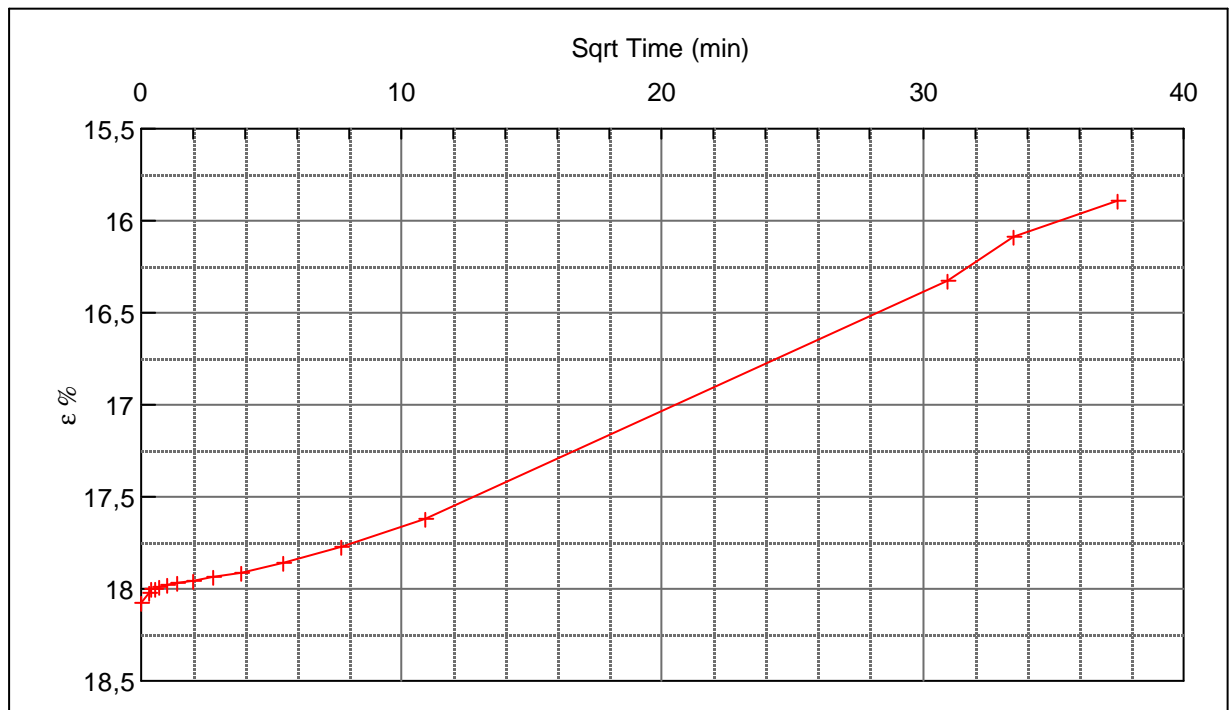
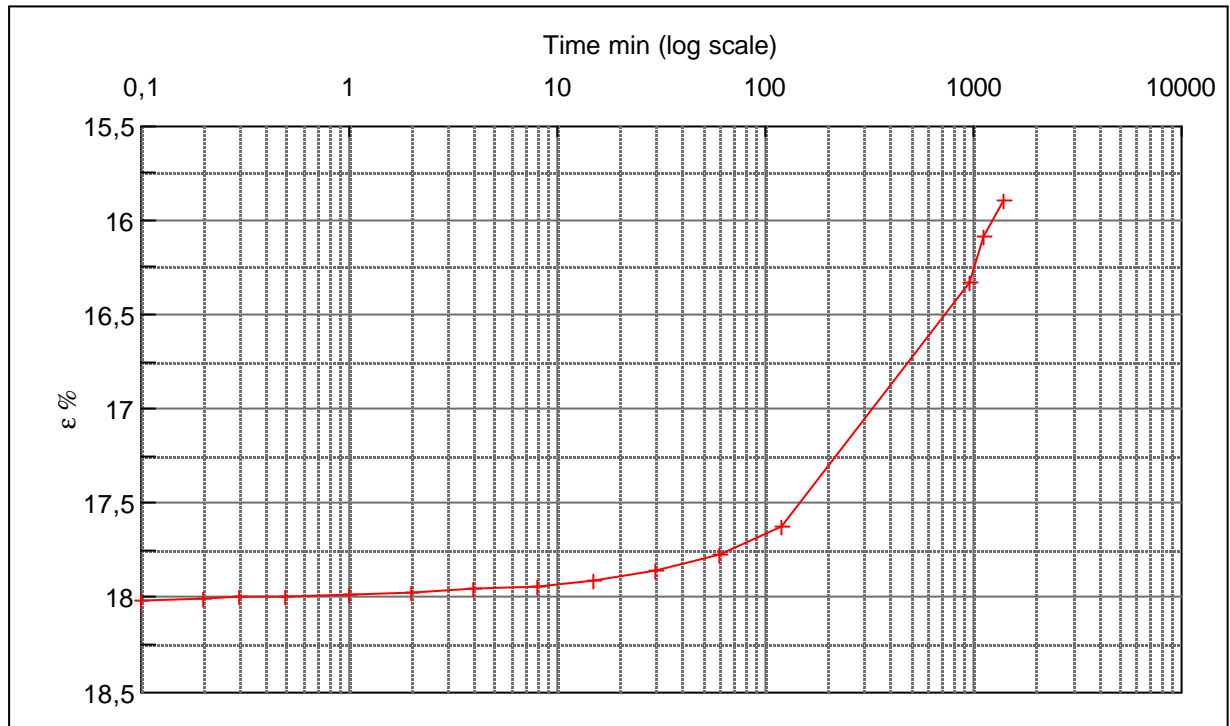
Step no 20	σ	kPa	ε	%	ε_i	tc in sec	43740
	Before	3.472,0	ε_0	19,77	ε_c %	K i kPa	164.402
	After	696,3	$\varepsilon_{-#}$	18,08	ε_s	k10 m/sec	1,3E-12
					ε_{kryb}	ck10 m ² /sec	2,2E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	10.8 m.b.s
Lab. no:	2	Insitu stress.	110 kPa

Job: Nørre Lyngby		AAU
		Encl. No 6.22
Executed:	AMS/gt	Check:
Approved:		

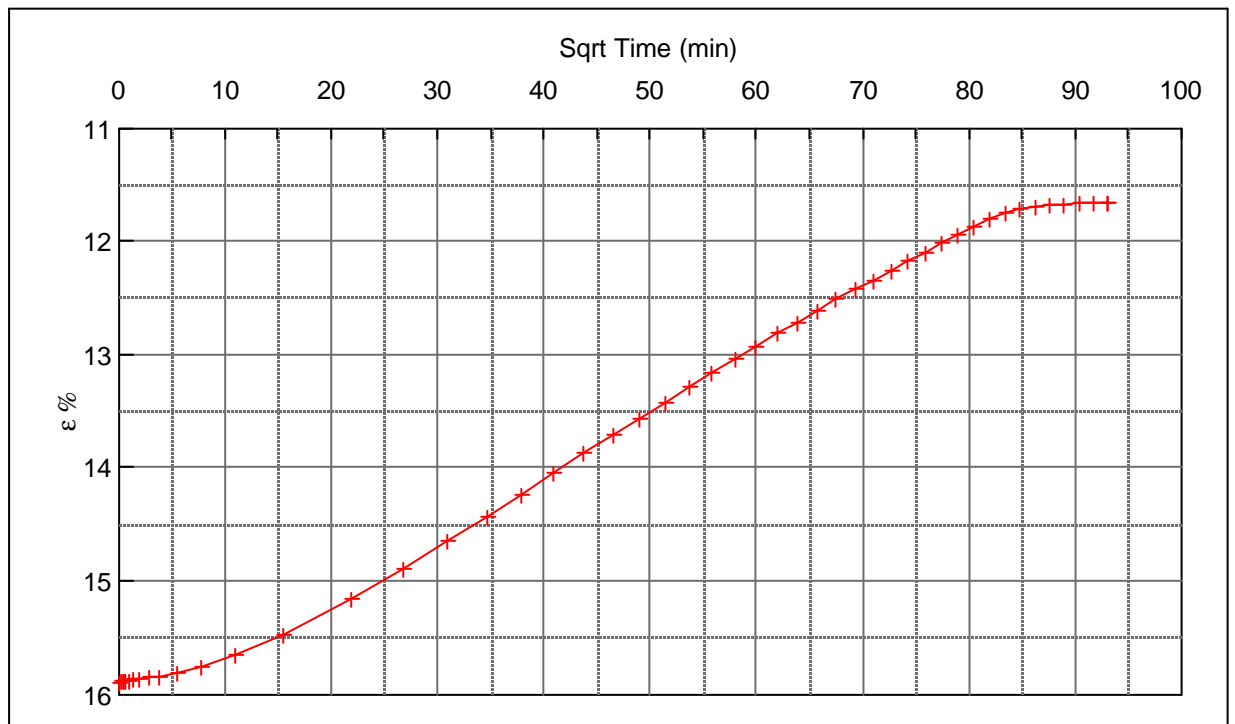
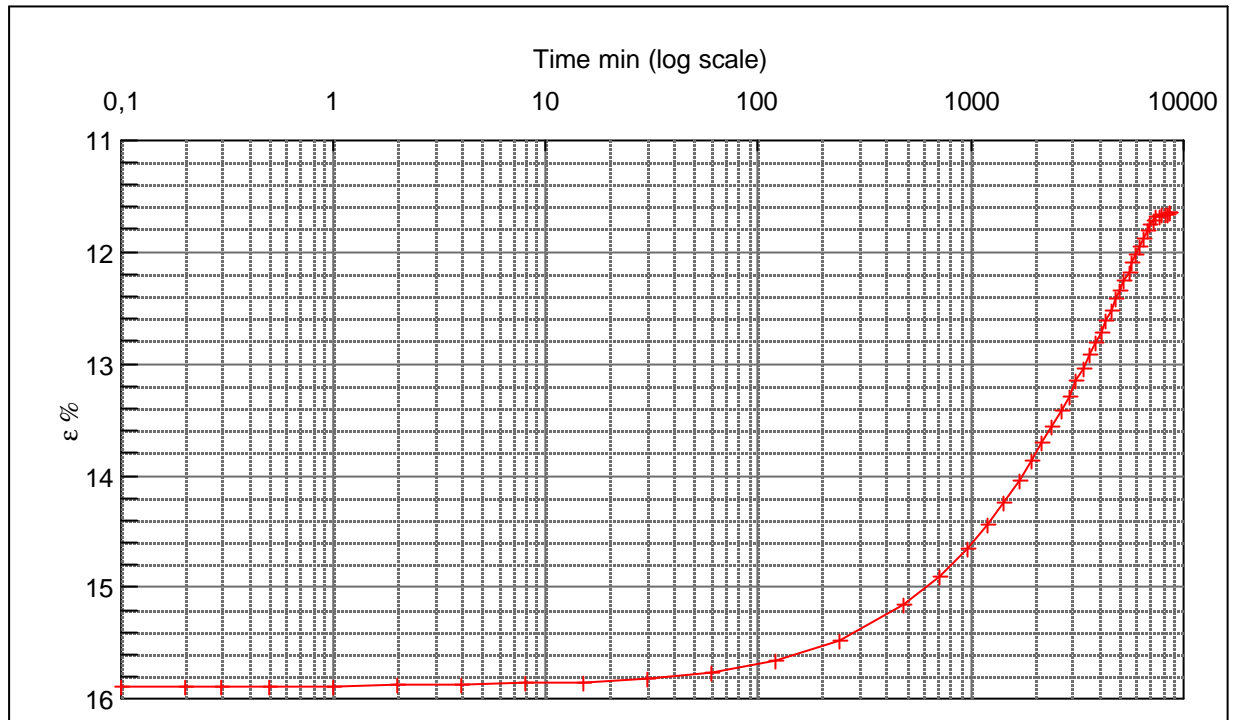
Step no 21	σ	kPa	ϵ	%	ϵ_i		tc in sec	86640
	Before	696,3	ϵ_0	18,08	ϵ_c %	15,89	K i kPa	28.556
	After	71,8	$\epsilon_{\sim\#}$	15,89	ϵ_s		k10 m/sec	3,8E-12
					ϵ_{kryb}		ck10 m ² /sec	1,12E-08



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 10.8 m.b.s
Lab. no: 2	Insitu stress. 110 kPa

Job: Nørre Lyngby	AAU
	Encl. No 6.23
Executed: AMS/gt	Check:
Approved:	

Step 22	σ	kPa	ε	%	ε_i		tc in sec	384000
	Before	71,8	ε_0	15,89	ε_c %	11,67	K i kPa	1.642
	After	2,4	$\varepsilon_{\sim\#}$	11,67	ε_s		k10 m/sec	1,5E-11
					ε_{kryb}		ck10 m^2 /sec	2,53E-09

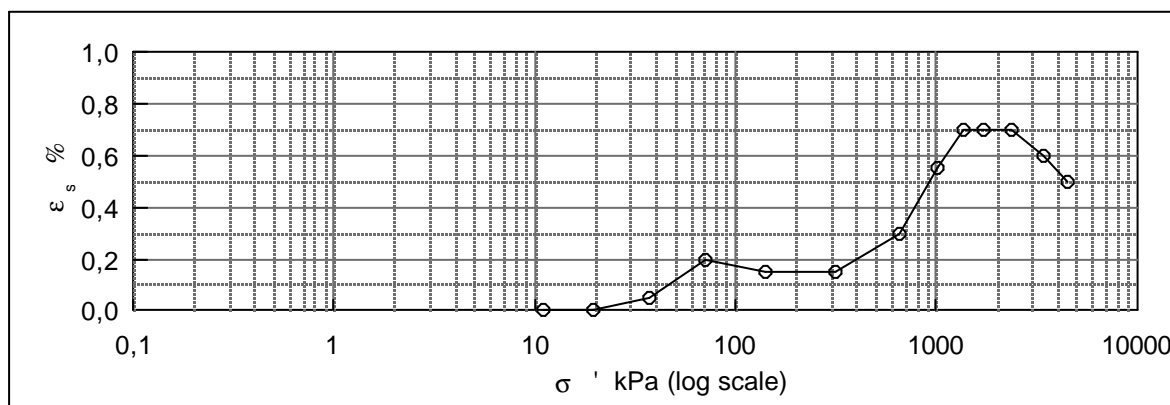
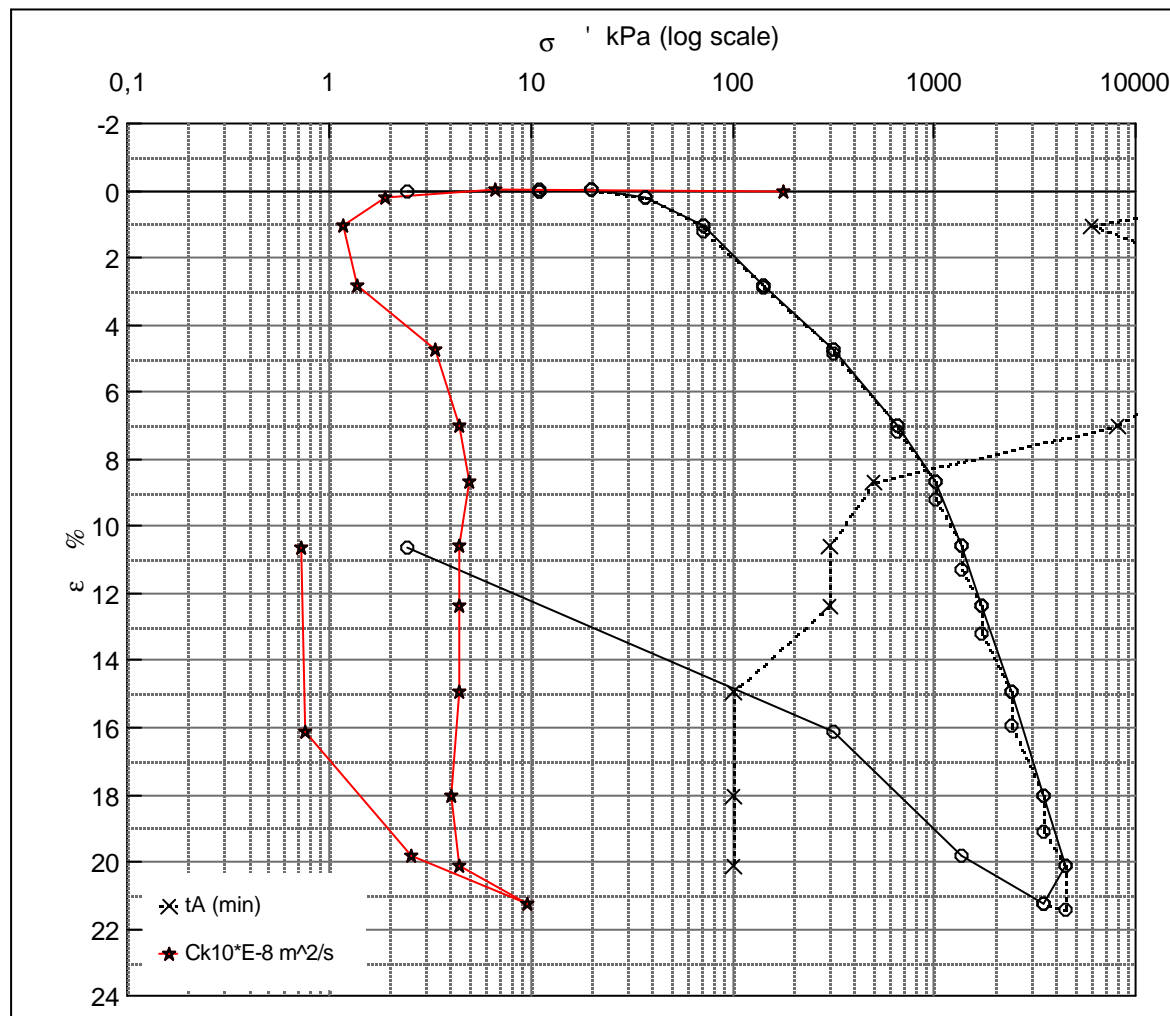


Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 10.8 m.b.s
Lab. no:	2	Insitu stress. 110 kPa

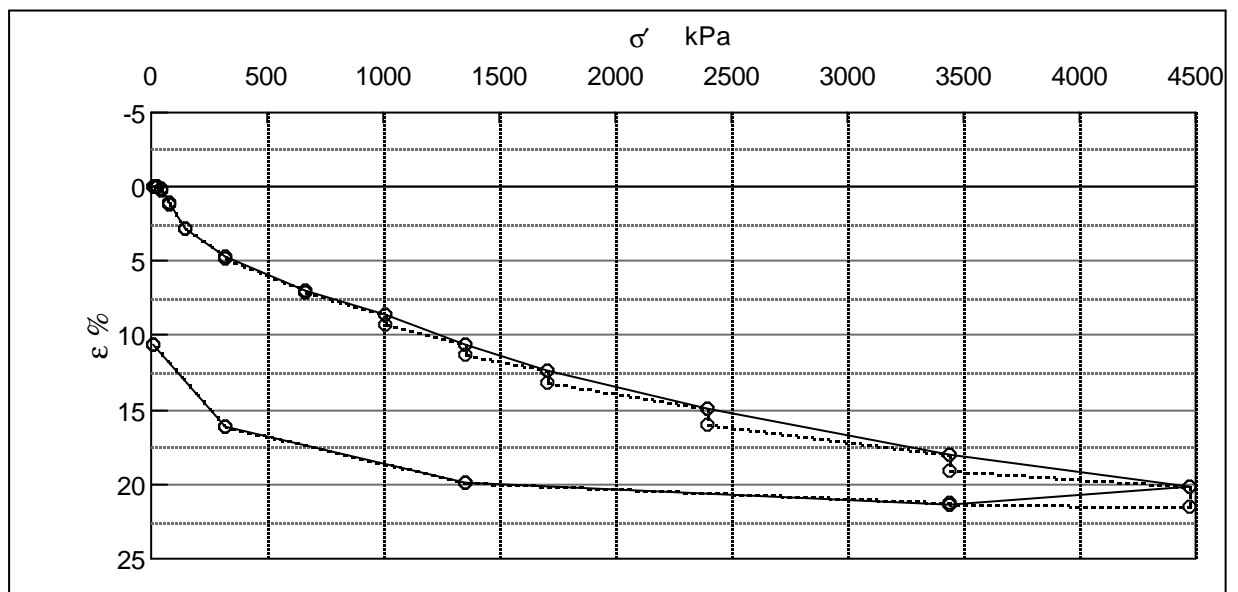
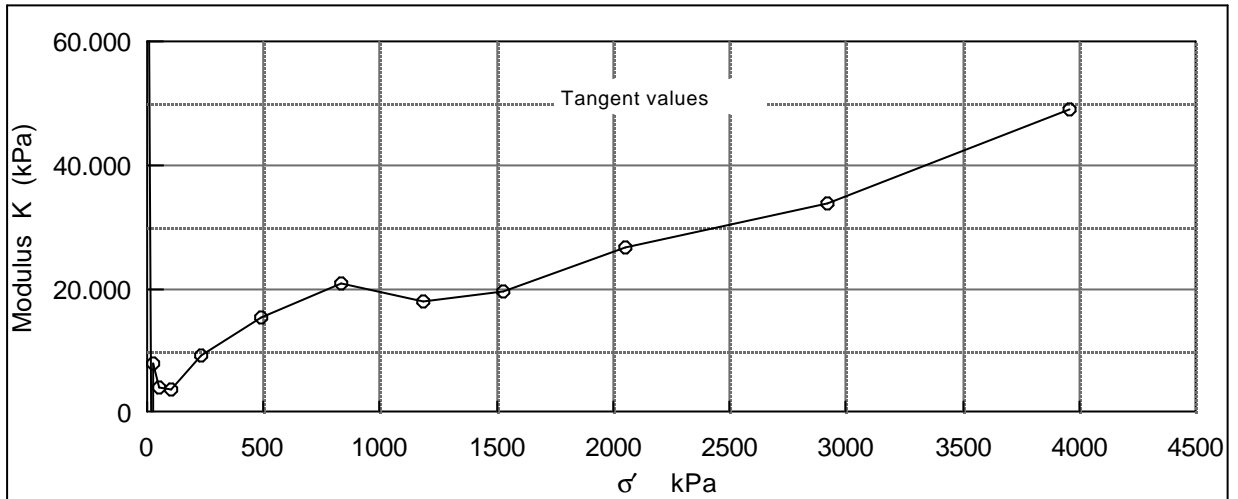
Job: Nørre Lyngby		AAU
		Encl. No 6.24
Executed:	AMS/gt	Check:
Approved:		

28.10.05/gt

Description of soil: Clay, marine, Lateglacial				Water content %	Before	After
				Bulk density Mg/m ³	37,4	31,1
				Grain density Mg/m ³	1,87	1,94
Bor no : 1	Overburden pressure σ'_o	90 kPa	Void ratio	1,03	0,86	
Lab. no: K6	Vane strength c_v	160 kPa	Degr. of Saturation %	100	100	
Level : 8 m.b.s	CPT - value q_c	MPa	Dimension H x D mm	30x60	27.8x60	



Job: Nr. Lyngby		AAU
		Encl. No 7.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ' kPa	ϵ_c %	ϵ_s % / lct	Ck10 m ² /s	σ'_m kPa	K kPa	w %
Q	20 %	2,4	0,00					37,4
Qs	0,7 %	11,1	0,01	0,00	1,8E-06	6,8	86739,4	37,4
σ'_{pc}	~1500 kPa	19,8	(0,04)	0,00	6,7E-08	15,4	-19275,4	37,4
		37,1	0,18	0,05	1,9E-08	28,5	8068,8	37,2
		71,8	1,05	0,20	1,2E-08	54,5	3988,0	36,6
		141,2	2,84	0,15	1,4E-08	106,5	3876,6	35,3
		314,7	4,75	0,15	3,3E-08	228,0	9082,7	33,9
		661,6	7,00	0,30	4,5E-08	488,2	15420,3	32,2
		1.008,6	8,66	0,55	5,0E-08	835,1	20901,1	31,0
		1.355,6	10,58	0,70	4,5E-08	1.182,1	18070,7	29,6
		1.702,5	12,34	0,70	4,5E-08	1.529,0	19713,5	28,3
		2.396,4	14,93	0,70	4,5E-08	2.049,5	26792,1	26,4
		3.437,3	18,01	0,60	4,0E-08	2.916,9	33794,6	24,1
		4.478,2	20,13	0,50	4,5E-08	3.957,7	49097,8	22,6
		3.437,3	21,27		9,6E-08	3.957,7	-91304,7	21,7
		1.355,6	19,83		2,6E-08	2.396,4	144565,7	22,8
		314,7	16,10		7,6E-09	835,1	27917,9	25,5
		2,4	10,63		7,3E-09	158,6	5701,7	29,6

Remark:

Job:
Nr. Lyngby

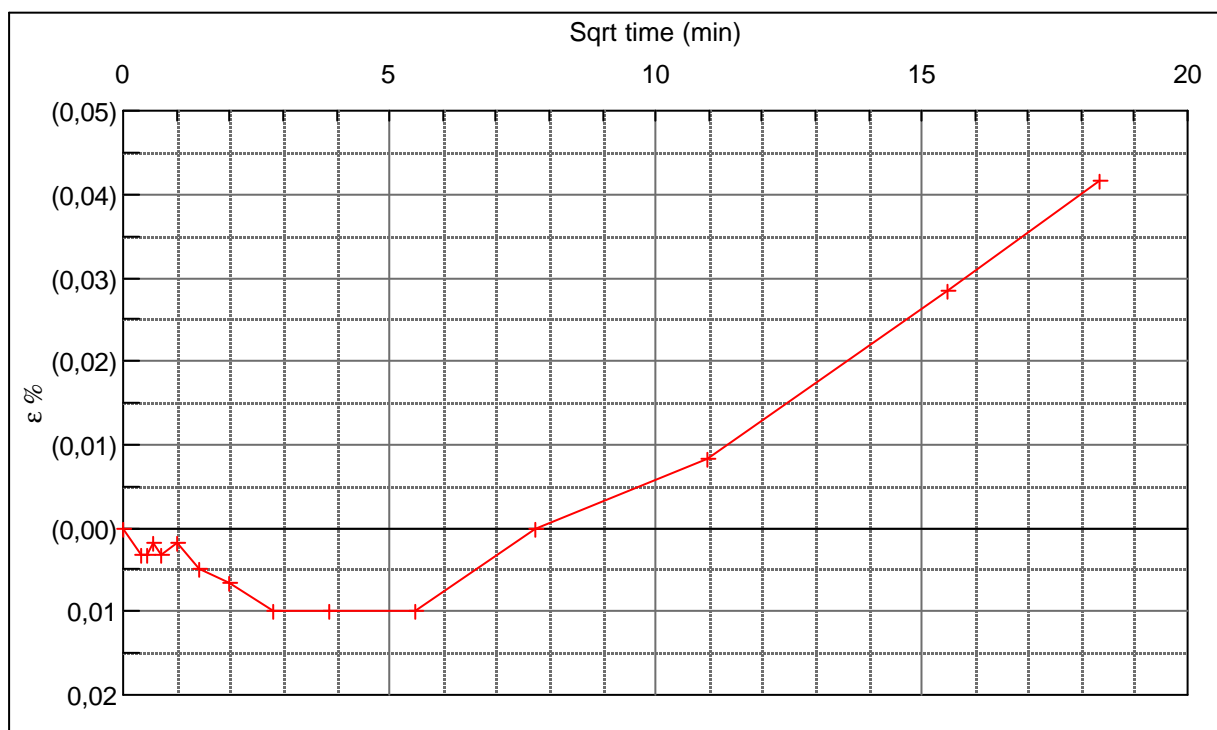
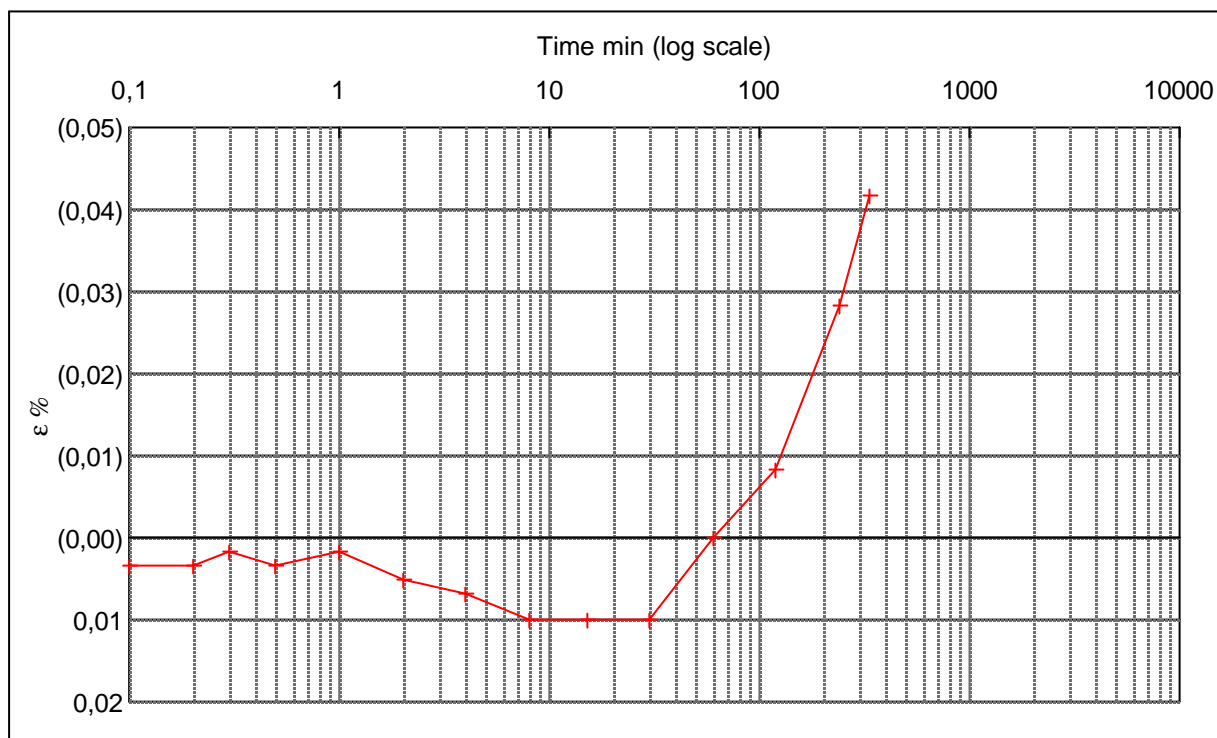
Executed: AMS/gt

Approved:

AAU
Encl. No
7.2

Check:

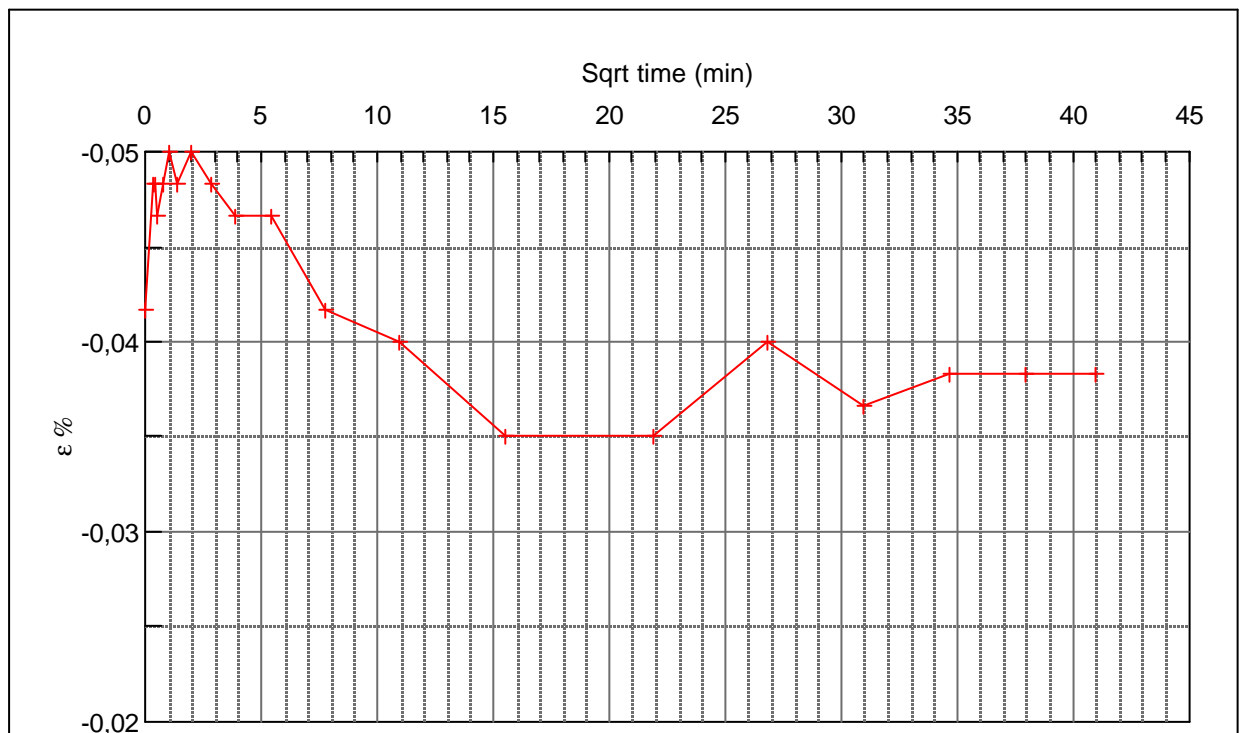
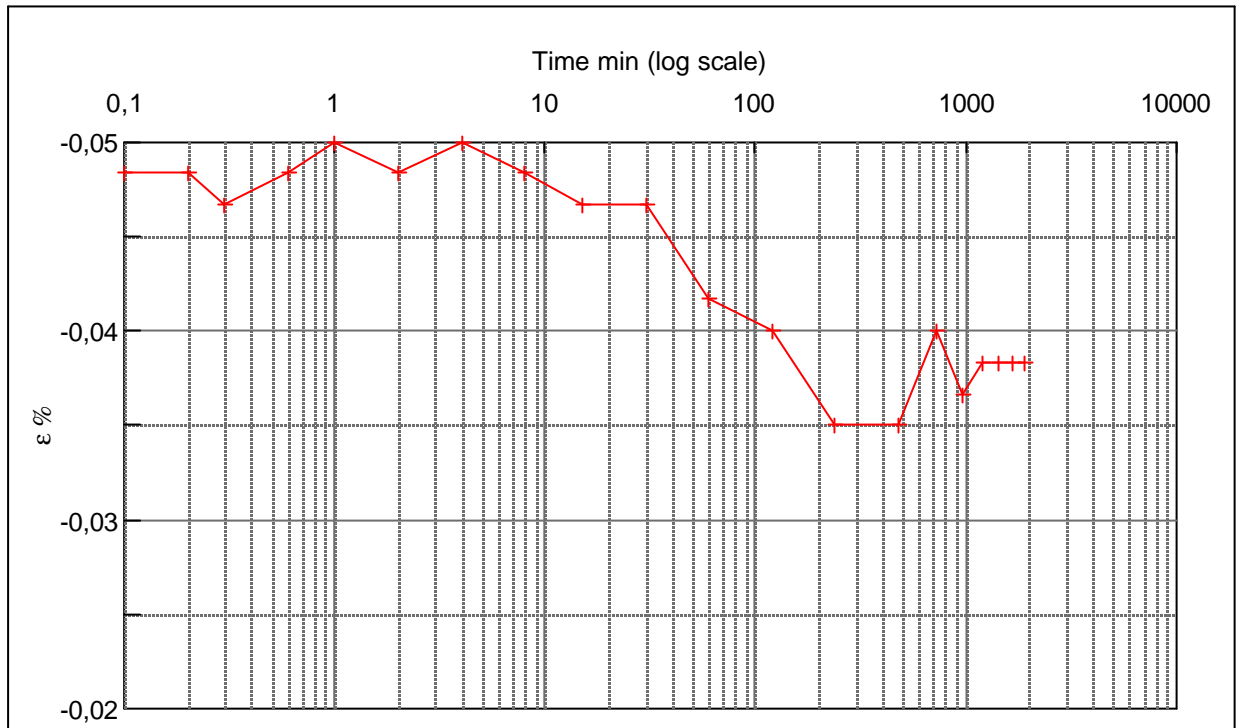
Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	540
	Before	2,43	ϵ_0	0,000	ϵ_c %	0,01	K i kPa	86.739
	After	11,10	$\epsilon_{-#}$	(0,042)	ϵ_s		k10 m/sec	2,0E-10
					ϵ_{kryb}	(0,042)	ck10 m ² /sec	1,80E-06



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	8 m.b.s
Lab. no:	K6	Insitu stress.	90 kPa

Job: Nr. Lyngby		AAU
		Encl. No 7.3
Executed:	AMS/gt	Check:
Approved:		

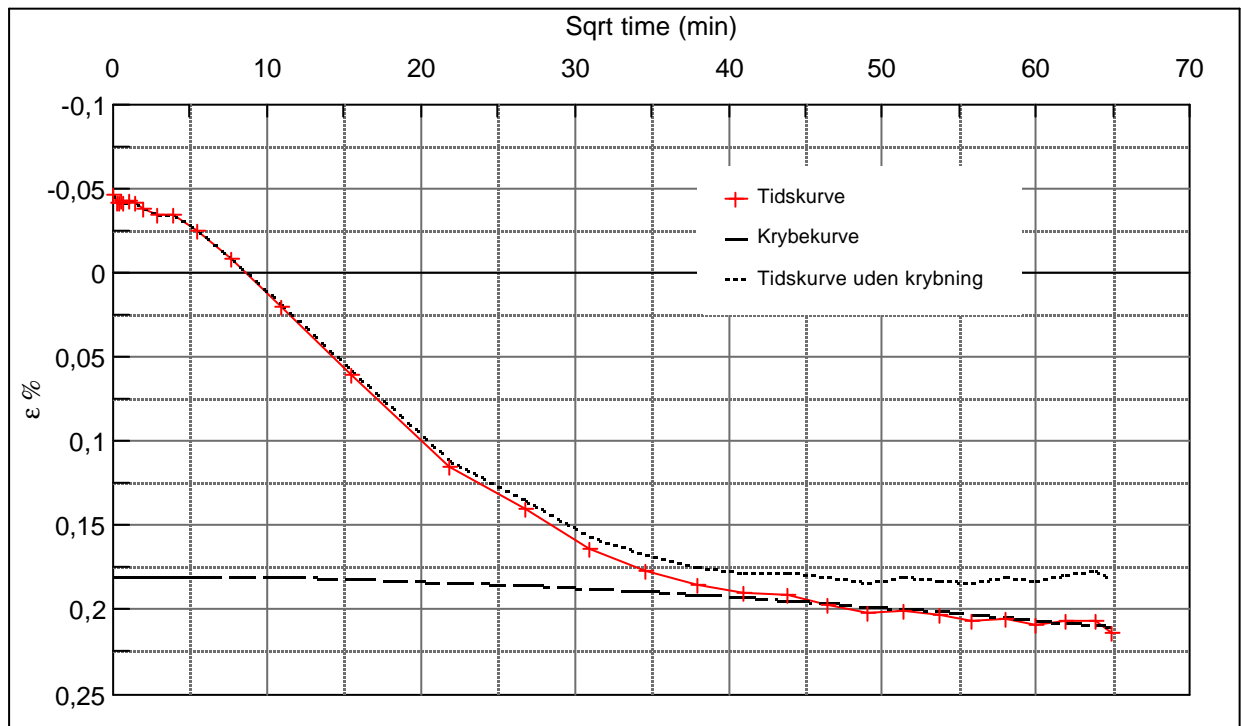
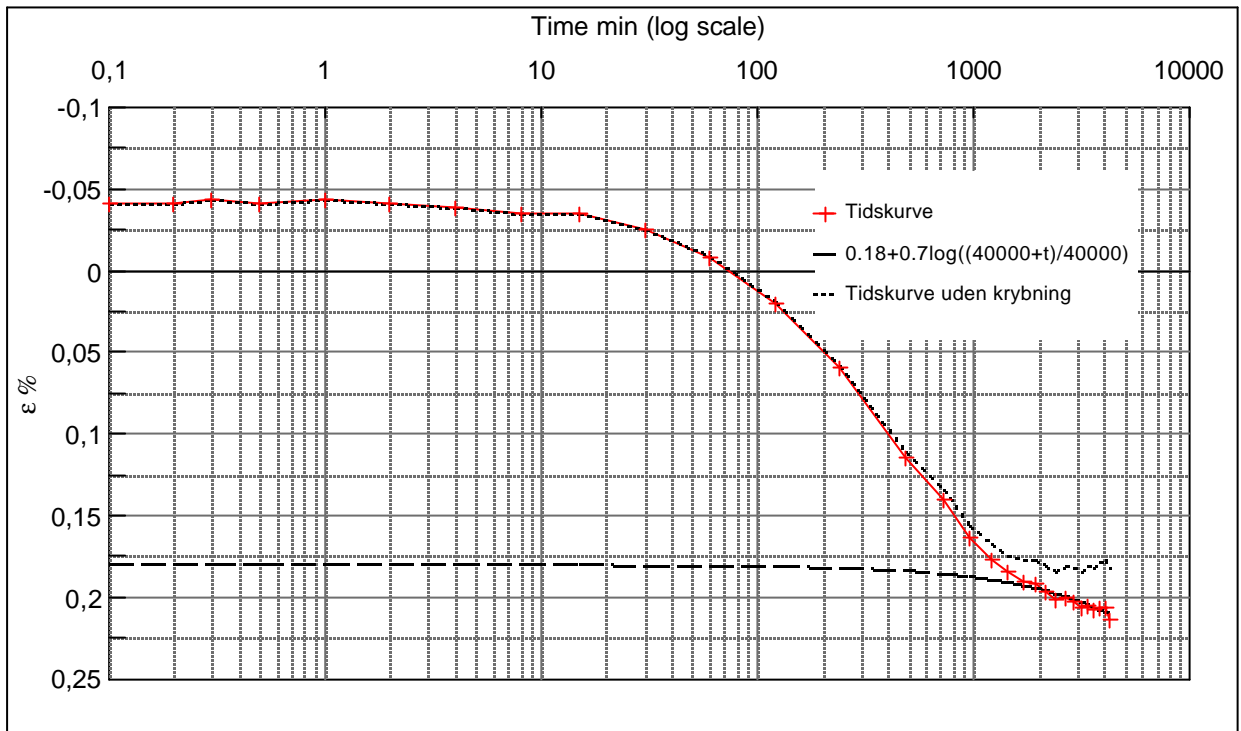
Step no 2	σ	kPa	ϵ	%	ϵ_i	tc in sec	14415
	Before	11,1	ϵ_0	(0,042)	ϵ_c %	K i kPa	130.109
	After	19,8	$\epsilon_{\sim\#}$	(0,047)	ϵ_s	k10 m/sec	5,1E-12
					ϵ_{kryb}	ck10 m ² /sec	6,73E-08



Material: Clay, marine, Lateglacial	
Bor no : 1	Depth: 8 m.b.s
Lab. no: K6	Insitu stress. 90 kPa

Job: Nr. Lyngby	AAU
	Encl. No 7.4
Executed: AMS/gt	Check:
Approved:	

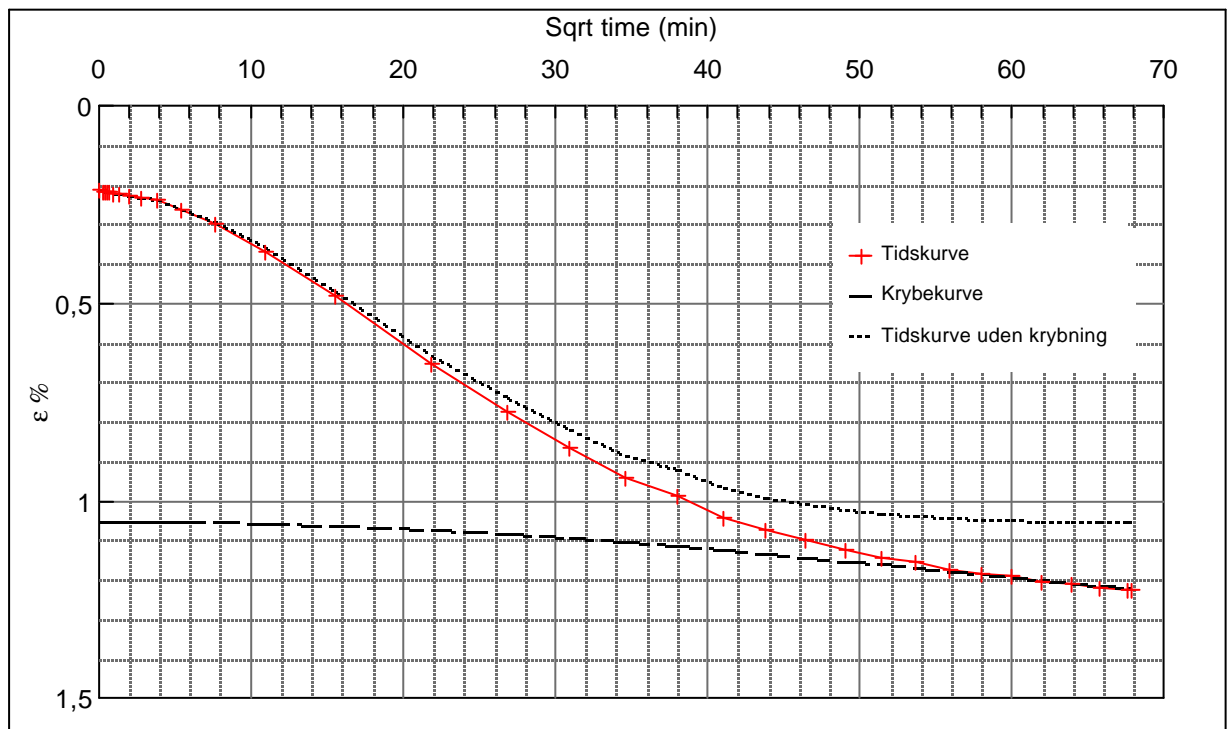
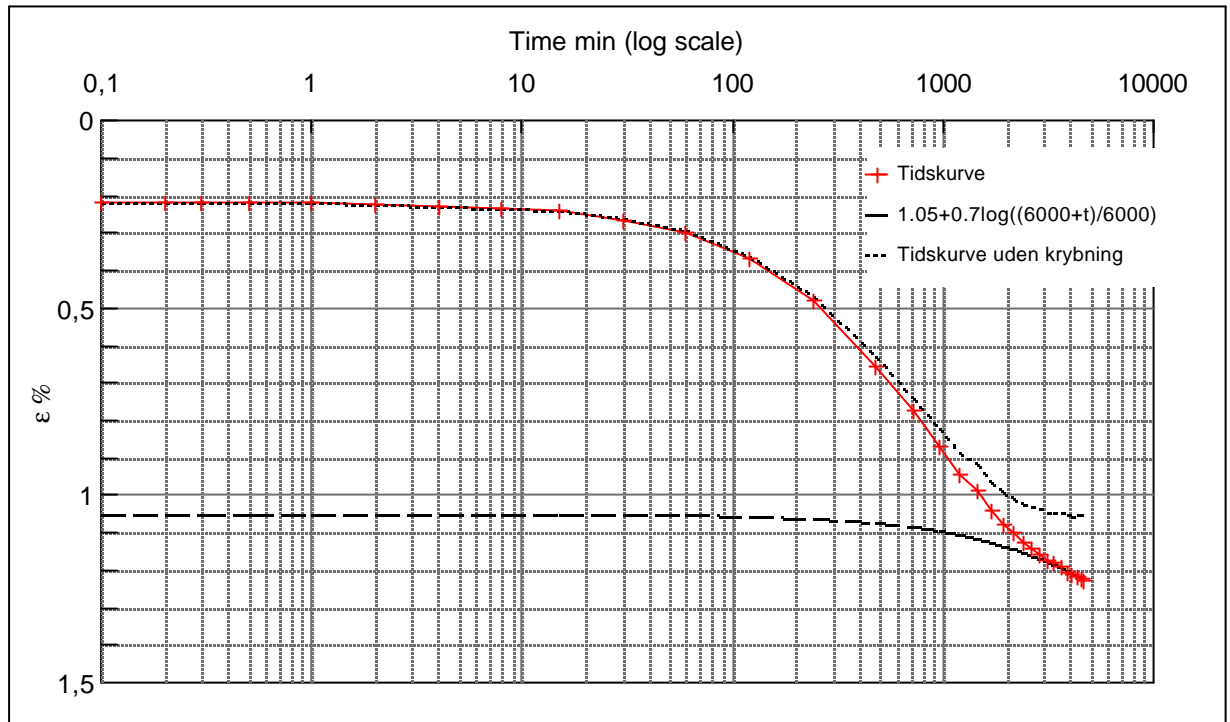
Step no 3	σ	kPa	ϵ	%	ϵ_i		tc in sec	50460
	Before	19,8	ϵ_0	(0,05)	ϵ_c %	0,18	K i kPa	7.653
	After	37,1	$\epsilon_{\sim\#}$	0,21	ϵ_s	0,05	k10 m/sec	2,5E-11
					ϵ_{kryb}	0,03	ck10 m ² /sec	1,92E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job:		AAU
Nr. Lyngby		Encl. No 7.5
Executed:	AMS/gt	Check:
Approved:		

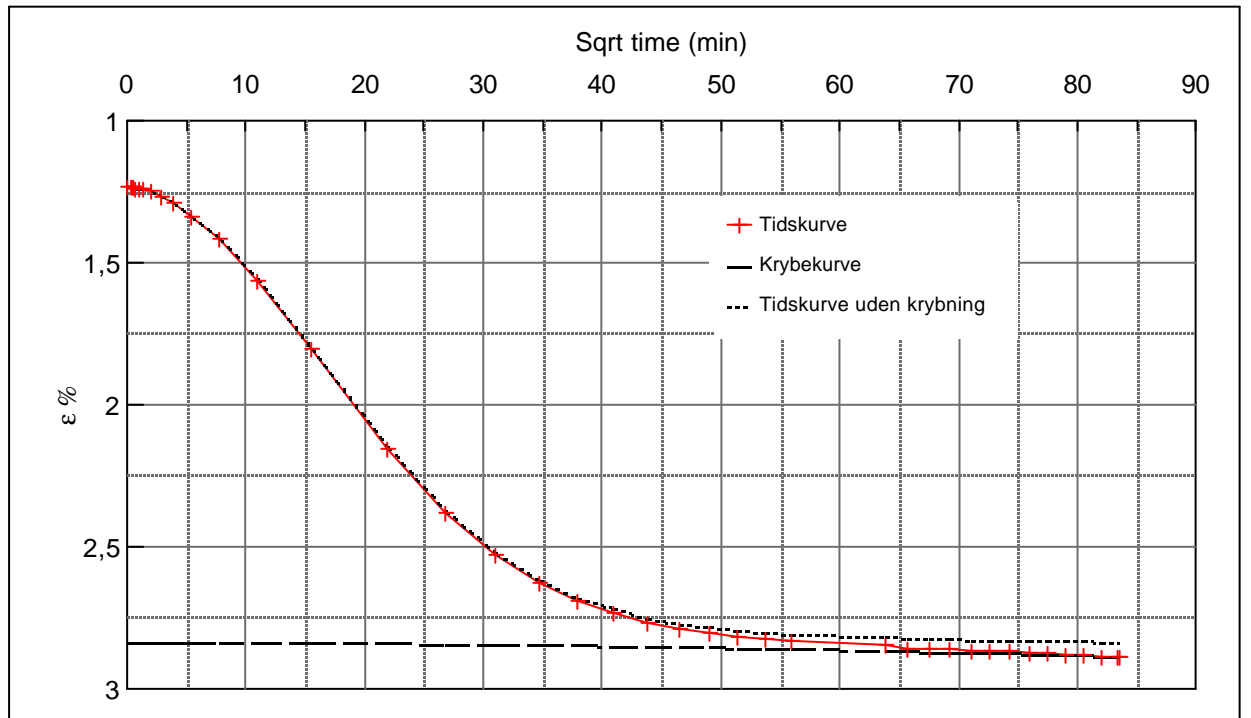
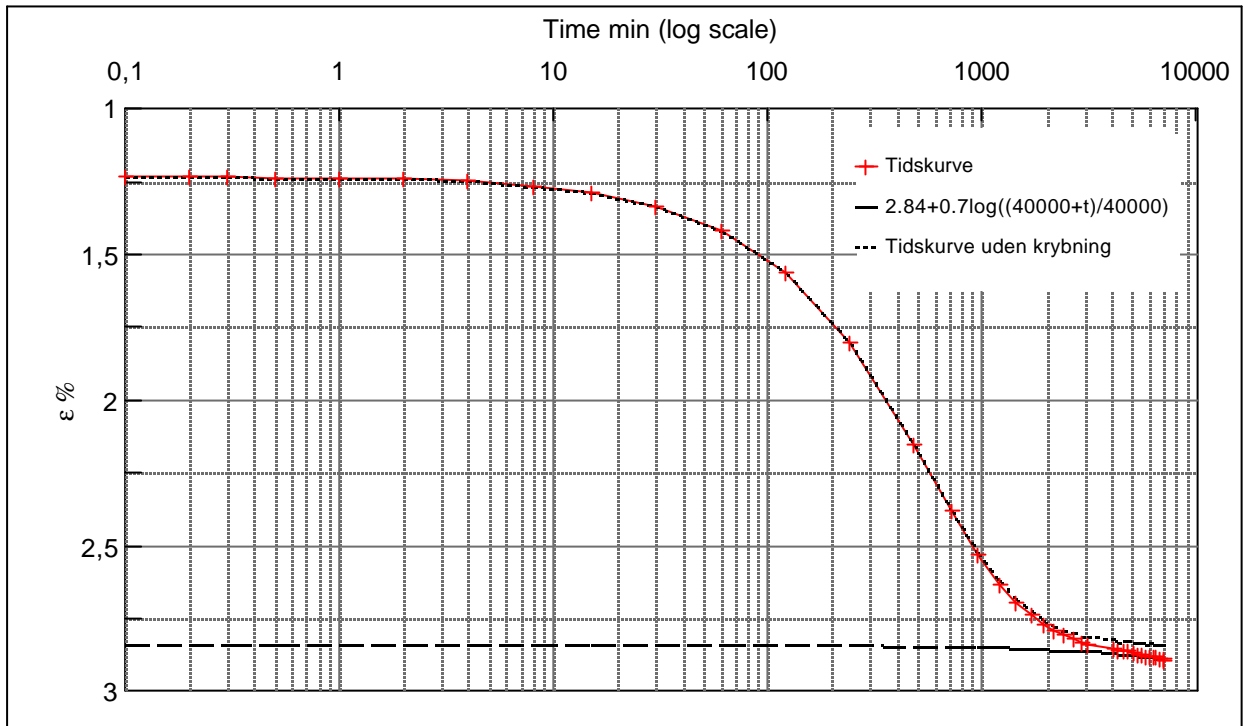
Step no 4	σ	kPa	ϵ	%	ϵ_i		tc in sec	82140
	Before	37,1	ϵ_0	0,21	ϵ_c %	1,05	K i kPa	4.130
	After	71,8	$\epsilon_{\sim\#}$	1,23	ϵ_s	0,2	k10 m/sec	2,8E-11
					ϵ_{kryb}	0,18	ck10 m ² /sec	1,18E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 7.6
Approved:		Check:

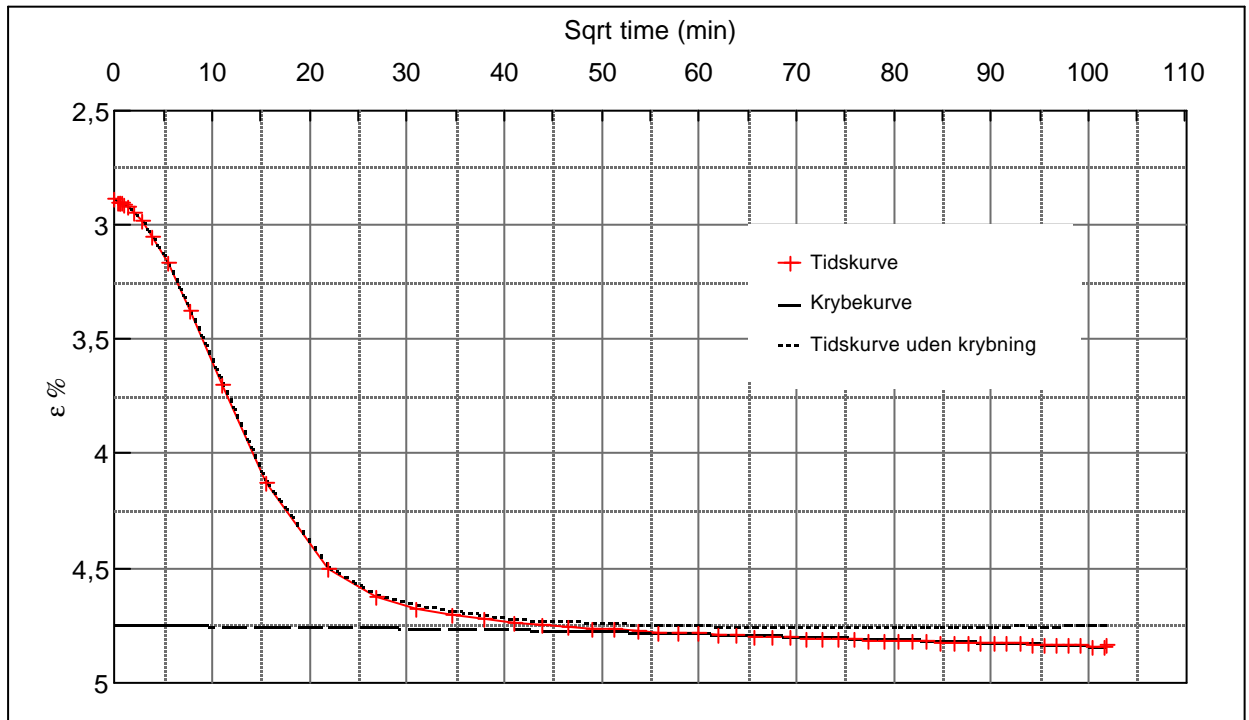
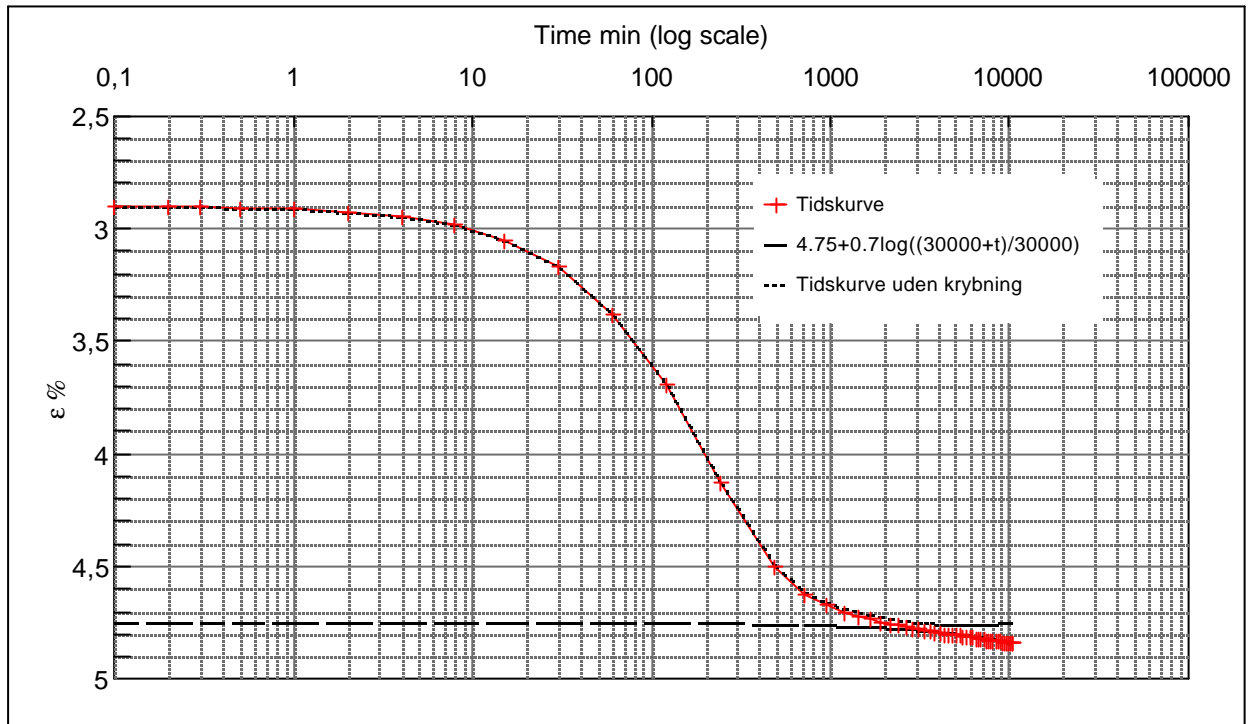
Step no 5	σ	kPa	ϵ	%	ϵ_i	tc in sec	69360
	Before	71,8	ϵ_0	1,23	ϵ_c %	K i kPa	4.306
	After	141,2	$\epsilon_{\sim\#}$	2,89	ϵ_s	k10 m/sec	3,2E-11
					ϵ_{kryb}	ck10 m ² /sec	1,40E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job:		AAU
Nr. Lyngby		Encl. No 7.7
Executed:	AMS/gt	Check:
Approved:		

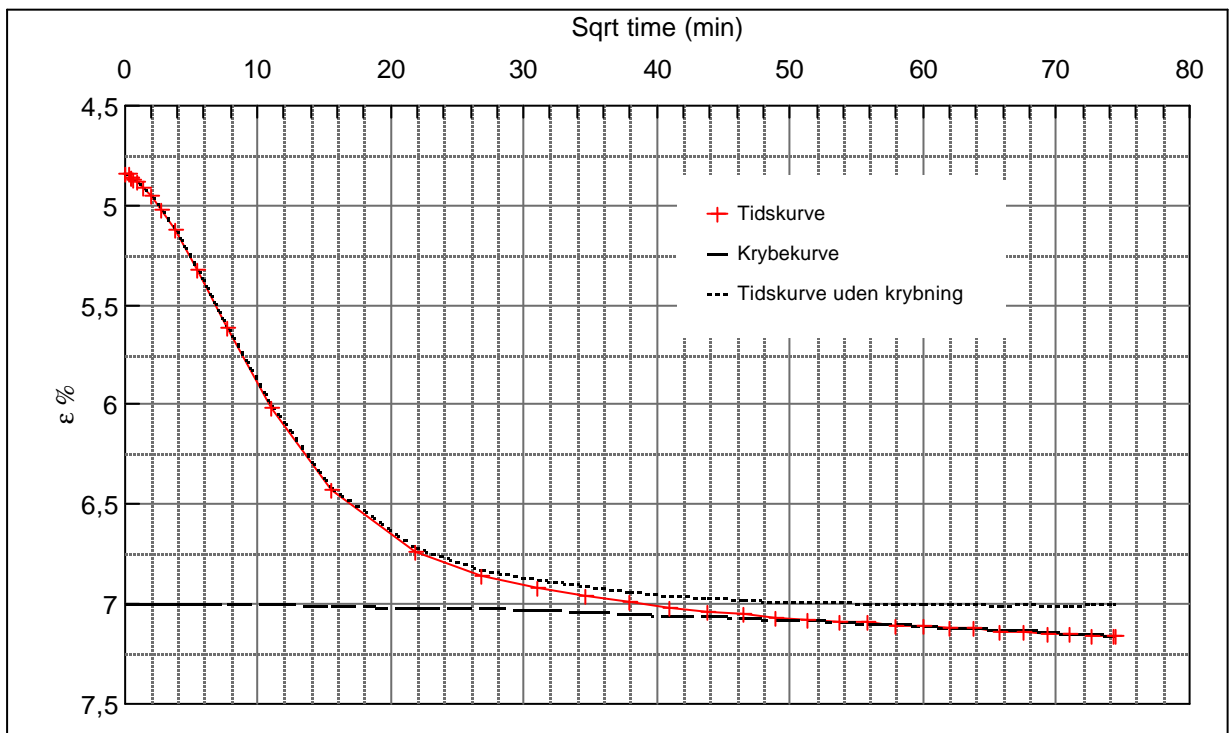
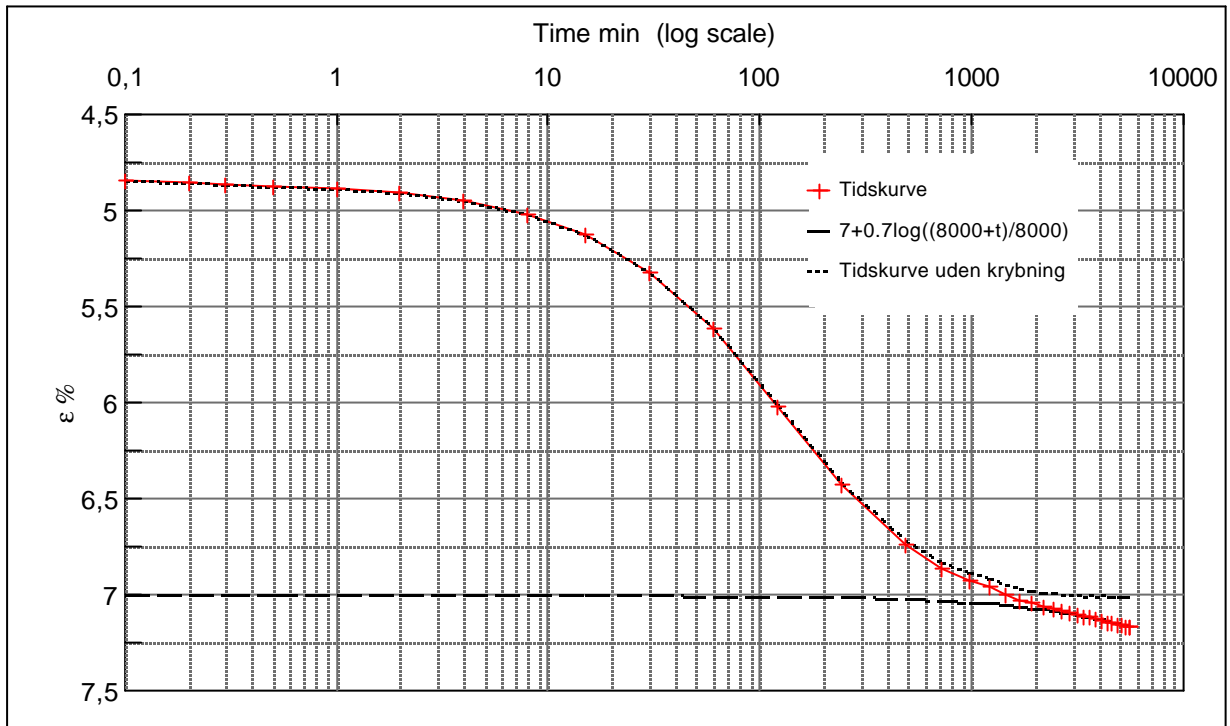
Step no 6	σ	kPa	ϵ	%	ϵ_i		tc in sec	29040
	Before	141,2	ϵ_0	2,89	ϵ_c %	4,75	K i kPa	9.327
	After	314,7	$\epsilon_{\sim\#}$	4,84	ϵ_s	0,15	k10 m/sec	3,5E-11
					ϵ_{kryb}	0,09	ck10 m ² /sec	3,34E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job:		AAU
Nr. Lyngby		Encl. No 7.8
Executed:	AMS/gt	Check:
Approved:		

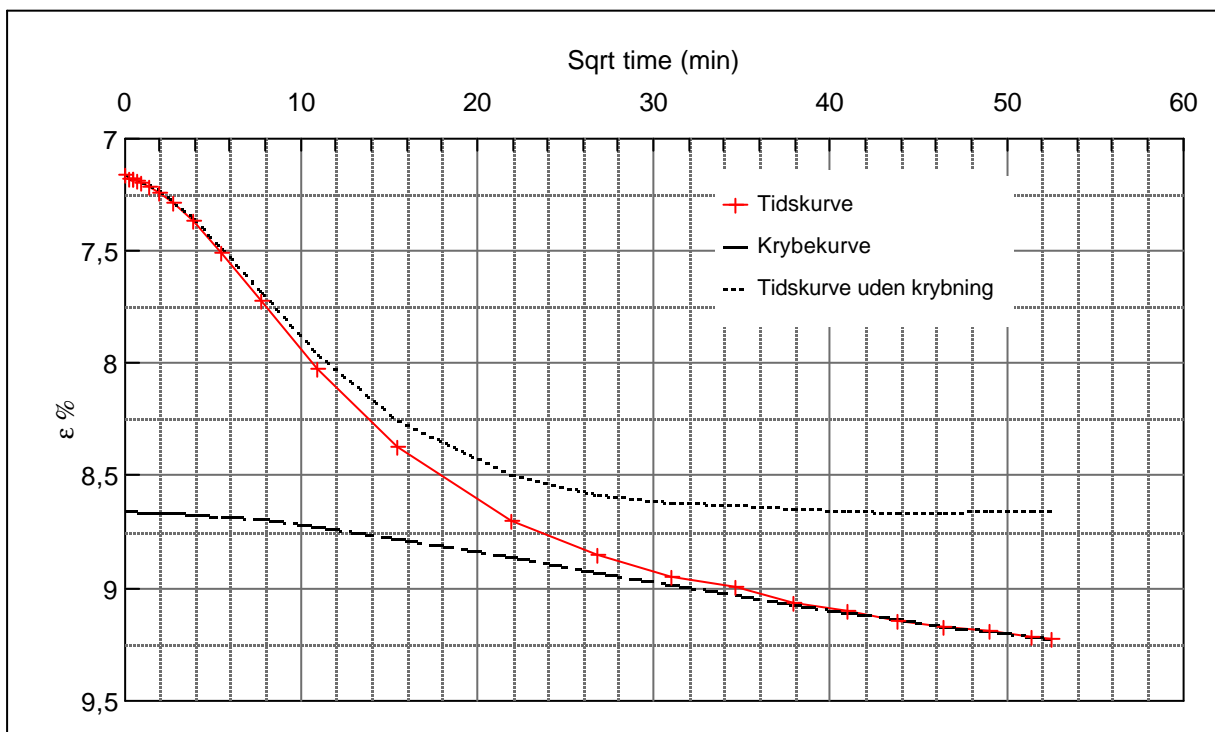
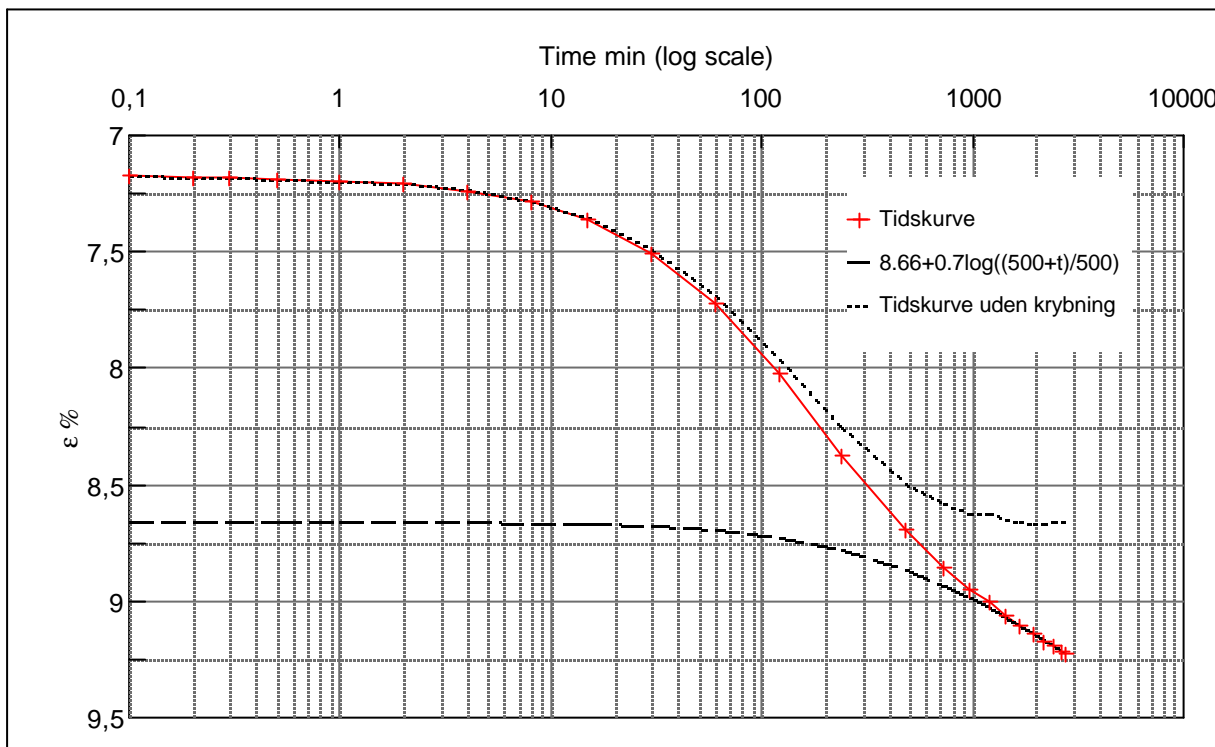
Step no 7	σ	kPa	ε	%	ε_i		tc in sec	21660
	Before	314,7	ε_0	4,84	ε_c %	7	K i kPa	16.050
	After	661,6	$\varepsilon_{\sim\#}$	7,16	ε_s	0,3	k10 m/sec	2,7E-11
					ε_{kryb}	0,16	ck10 m ² /sec	4,47E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 7.9
Approved:		Check:

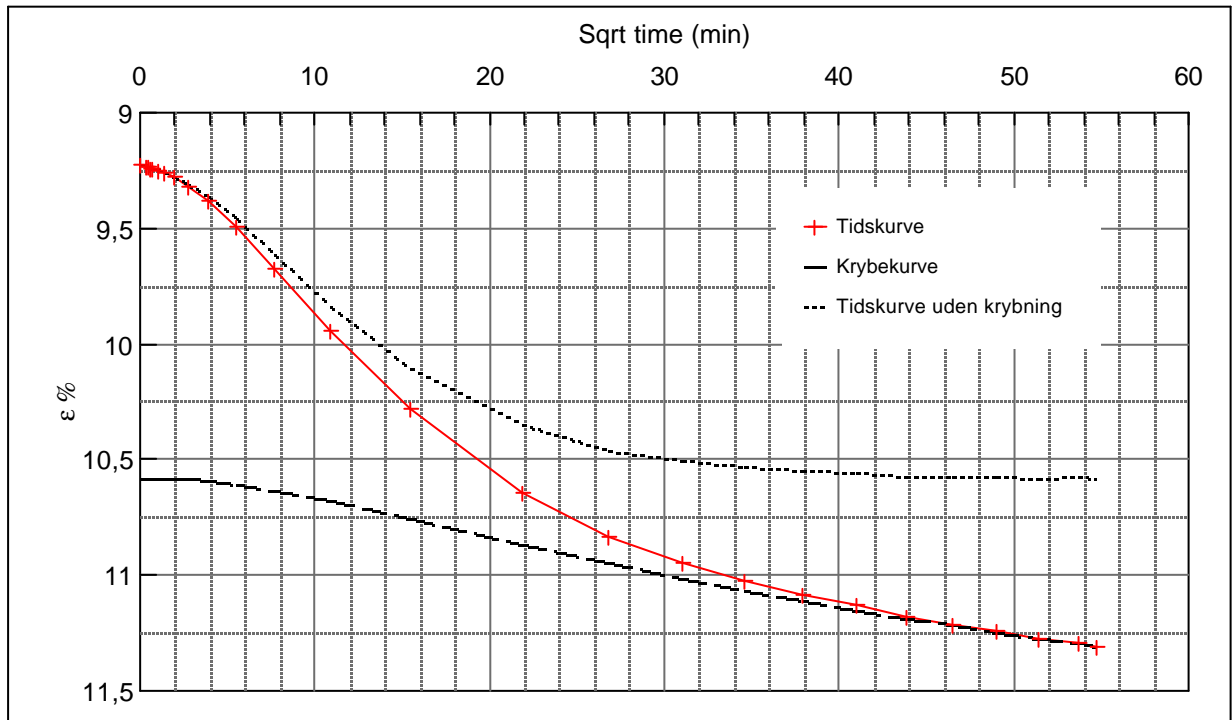
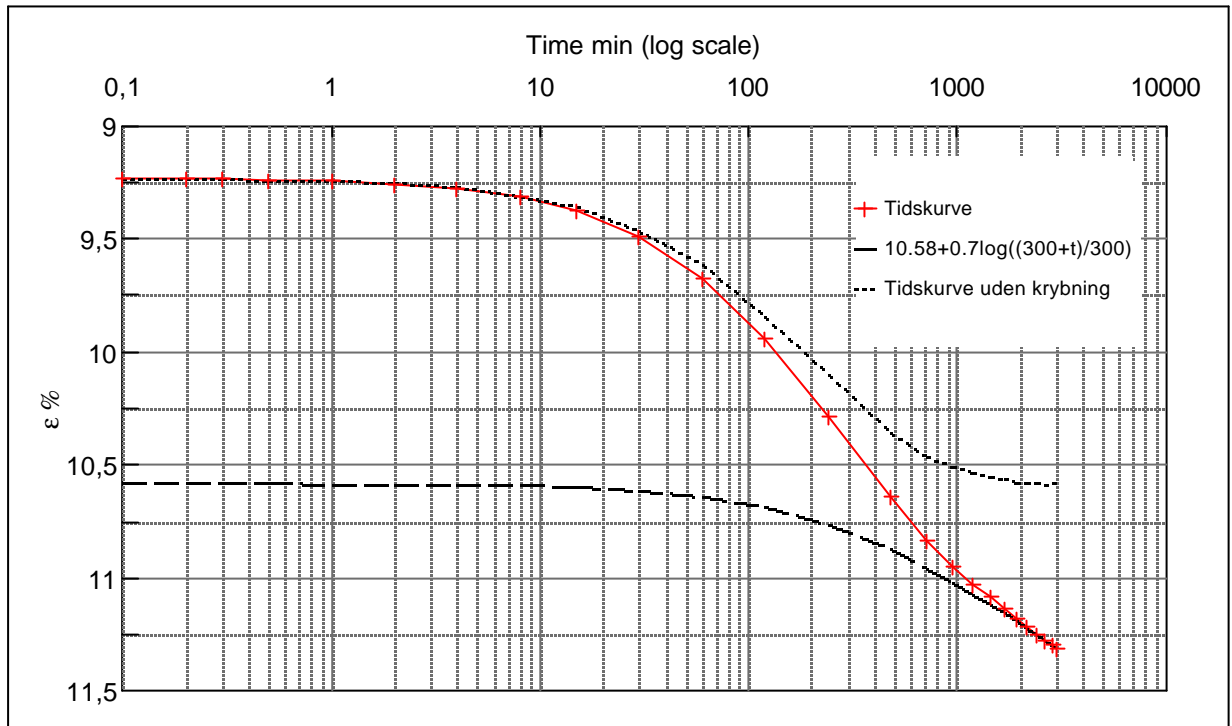
Step no 8	σ	kPa	ε	%	ε_i	tc in sec	19440
	Before	661,6	ε_0	7,16	ε_c %	K i kPa	23.156
	After	1.008,6	$\varepsilon_{-#}$	9,23	ε_s	k10 m/sec	2,1E-11
					ε_{kryb}	ck10 m ² /sec	4,99E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	8 m.b.s
Lab. no:	K6	Insitu stress.	90 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 7.10
Approved:		Check:

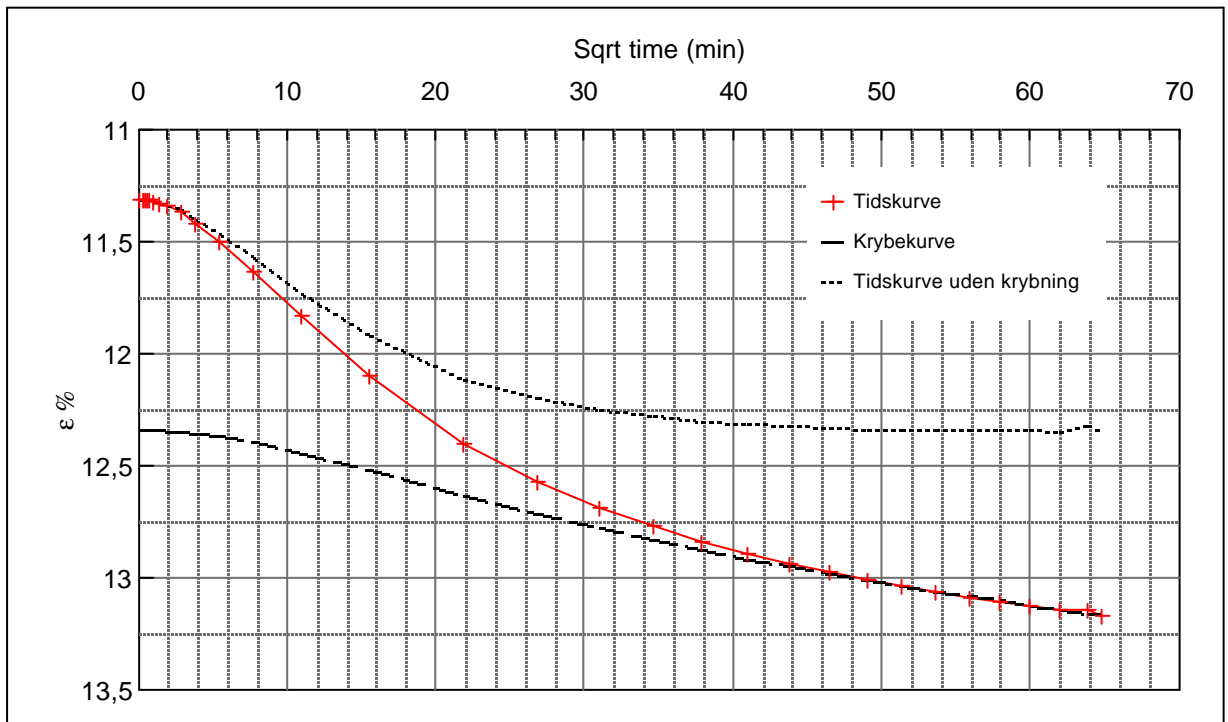
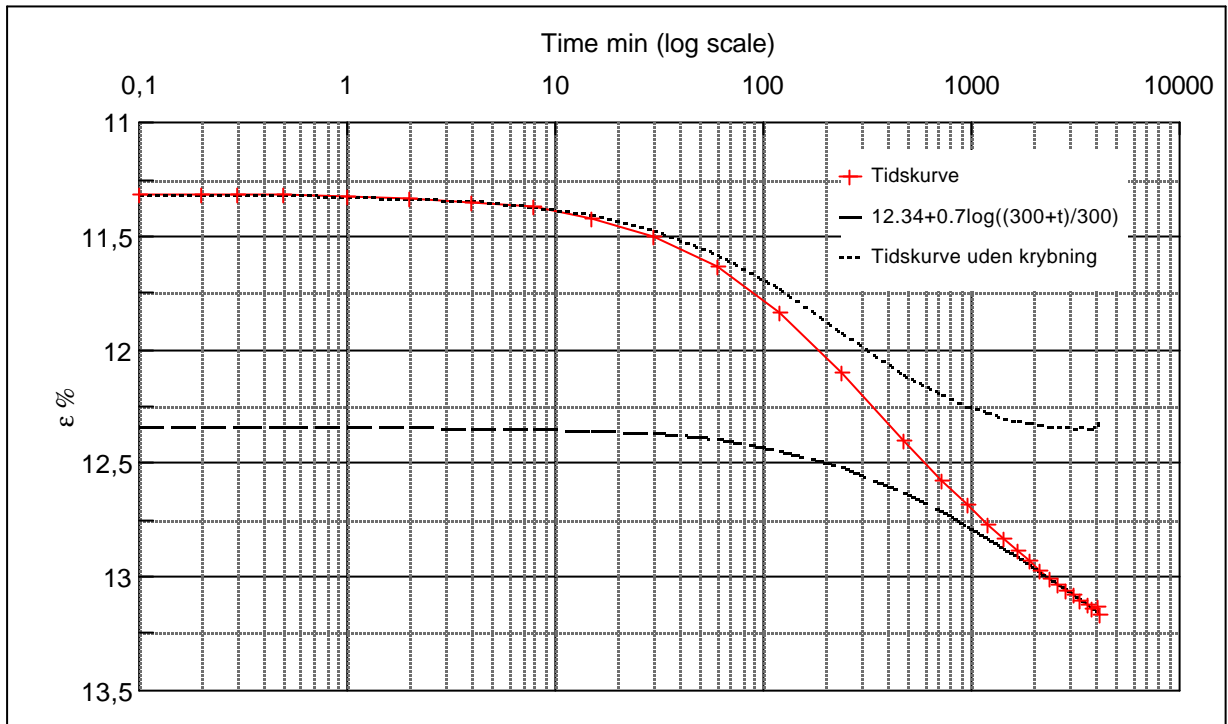
Step no 9	σ	kPa	ϵ	%	ϵ_i		tc in sec	21660
	Before	1.008,6	ϵ_0	9,23	ϵ_c %	10,58	K i kPa	25.637
	After	1.355,6	$\epsilon_{\sim\#}$	11,31	ϵ_s	0,7	k10 m/sec	1,7E-11
					ϵ_{kryb}	0,73	ck10 m ² /sec	4,48E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job:		AAU
Nr. Lyngby		Encl. No 7.11
Executed:	AMS/gt	Check:
Approved:		

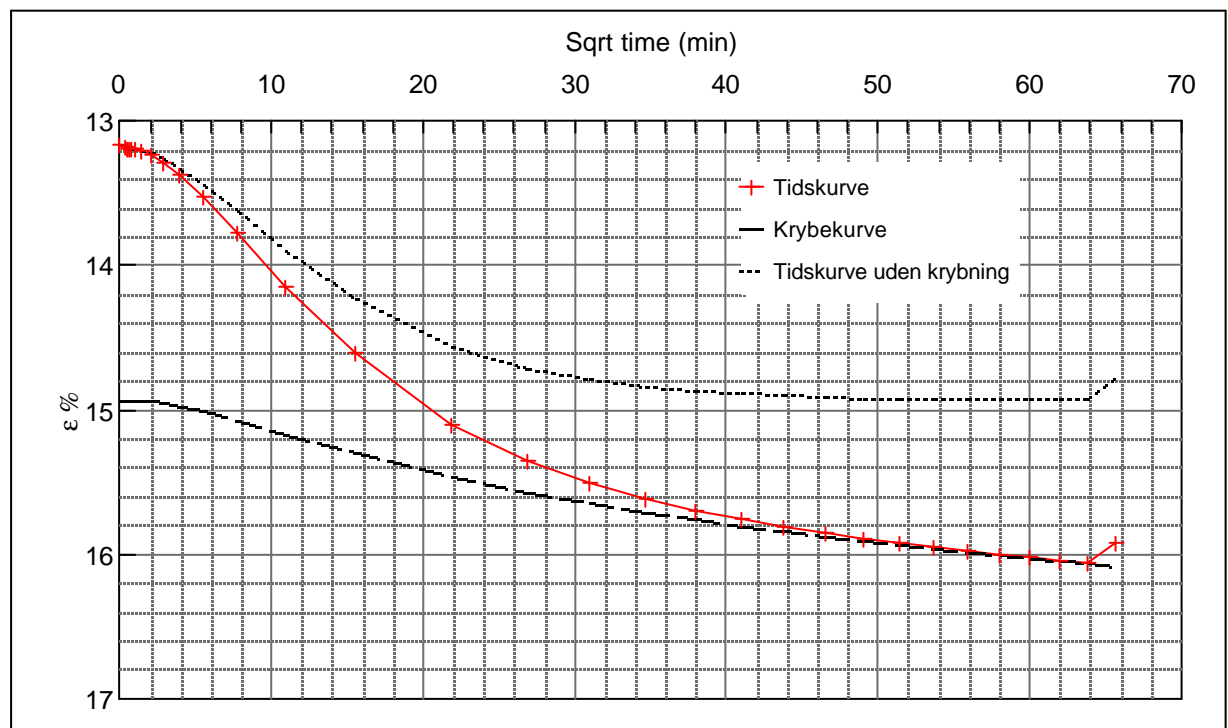
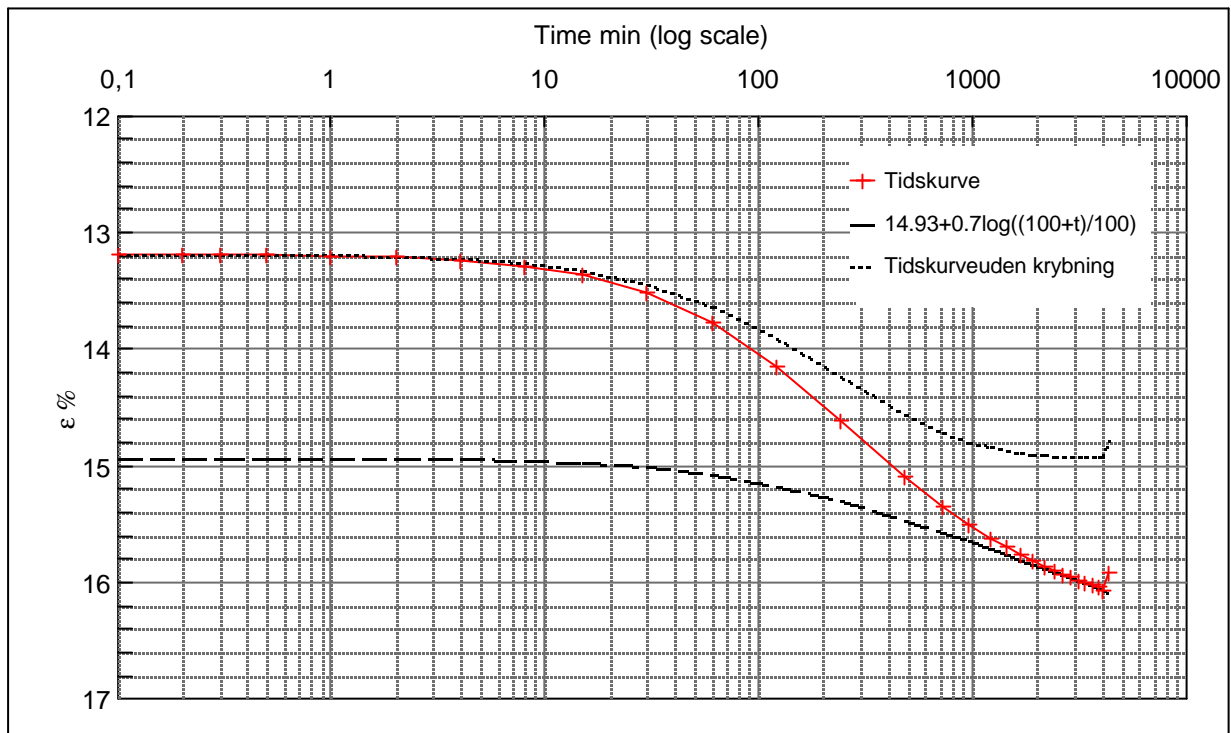
Step no 10	σ	kPa	ϵ	%	ϵ_i		tc in sec	21660
	Before	1.355,6	ϵ_0	11,31	ϵ_c %	12,34	K i kPa	33.740
	After	1.702,5	$\epsilon_{\sim\#}$	13,17	ϵ_s	0,7	k10 m/sec	1,3E-11
					ϵ_{kryb}	0,83	ck10 m ² /sec	4,48E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job:		AAU
Nr. Lyngby		Encl. No 7.12
Executed:	AMS/gt	Check:
Approved:		

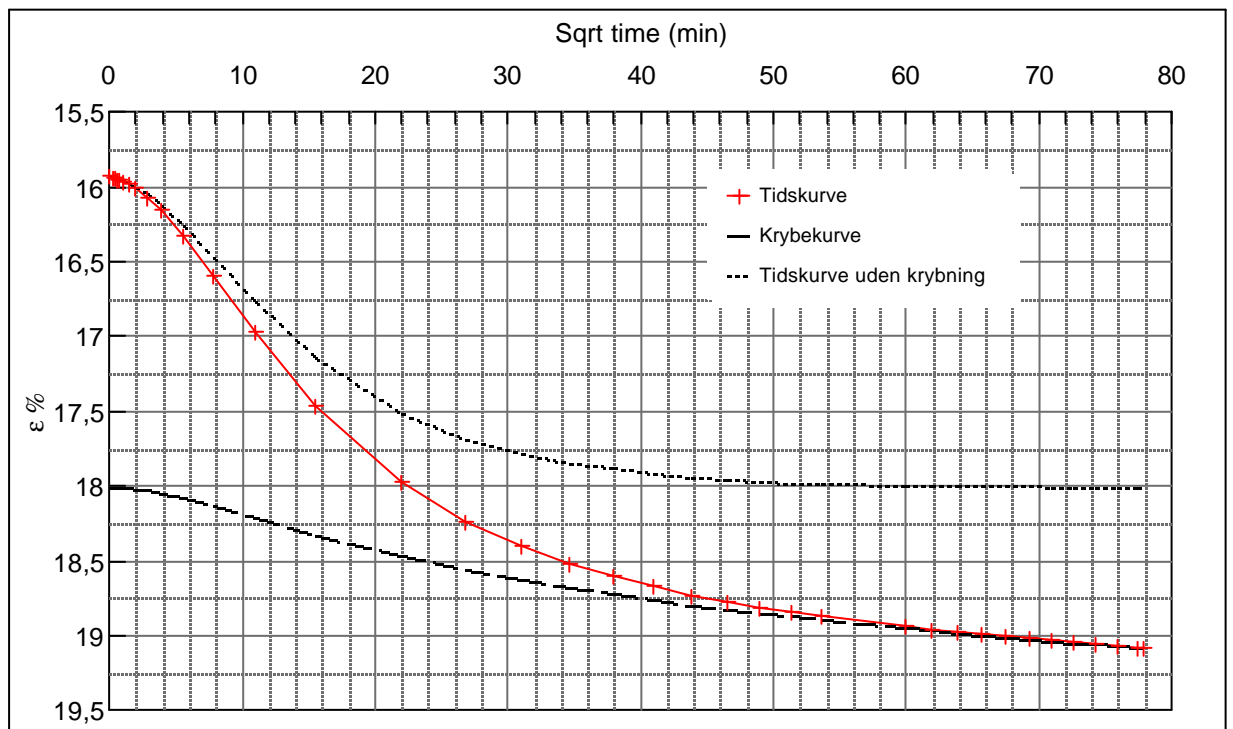
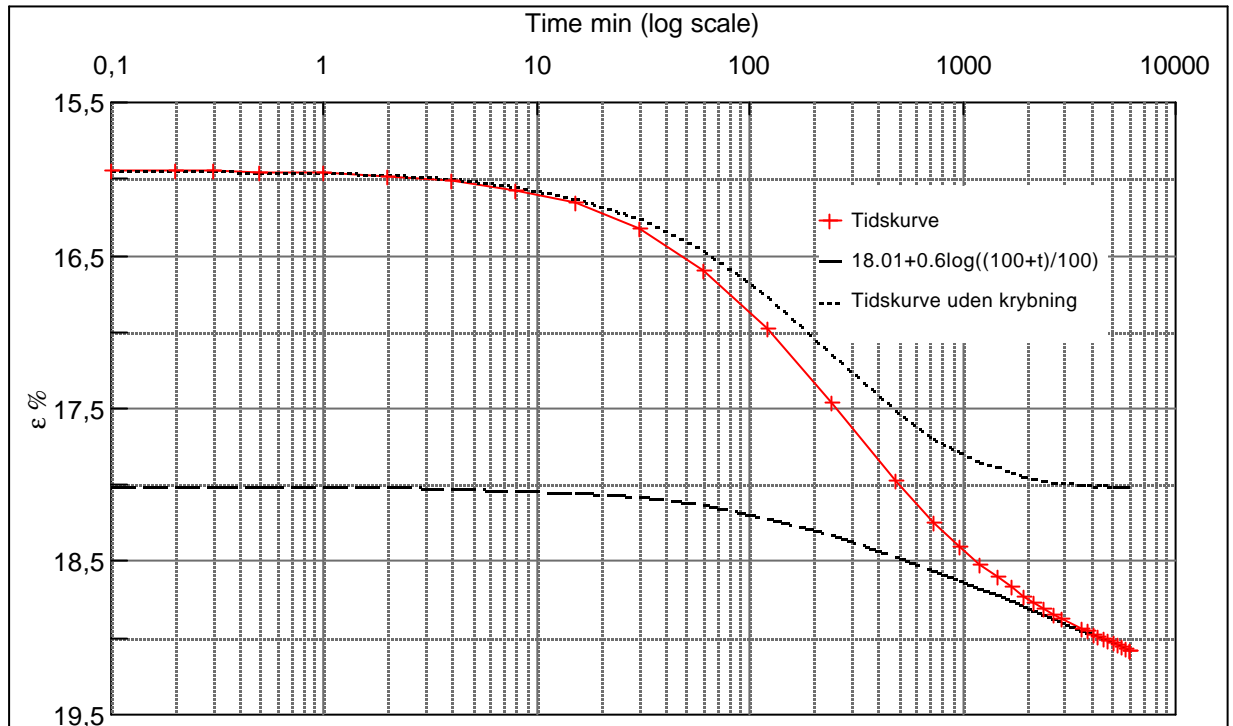
Step no 11	σ	kPa	ε	%	ε_i	tc in sec	21660
	Before	1.702,5	ε_0	13,17	ε_c %	K i kPa	39.315
	After	2.396,4	$\varepsilon_{-#}$	15,91	ε_s	k10 m/sec	1,1E-11
					ε_{kryb}	ck10 m ² /sec	4,48E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	8 m.b.s
Lab. no:	K6	Insitu stress.	90 kPa

Job:		AAU
Nr. Lyngby		Encl. No 7.13
Executed:	AMS/gt	Check:
Approved:		

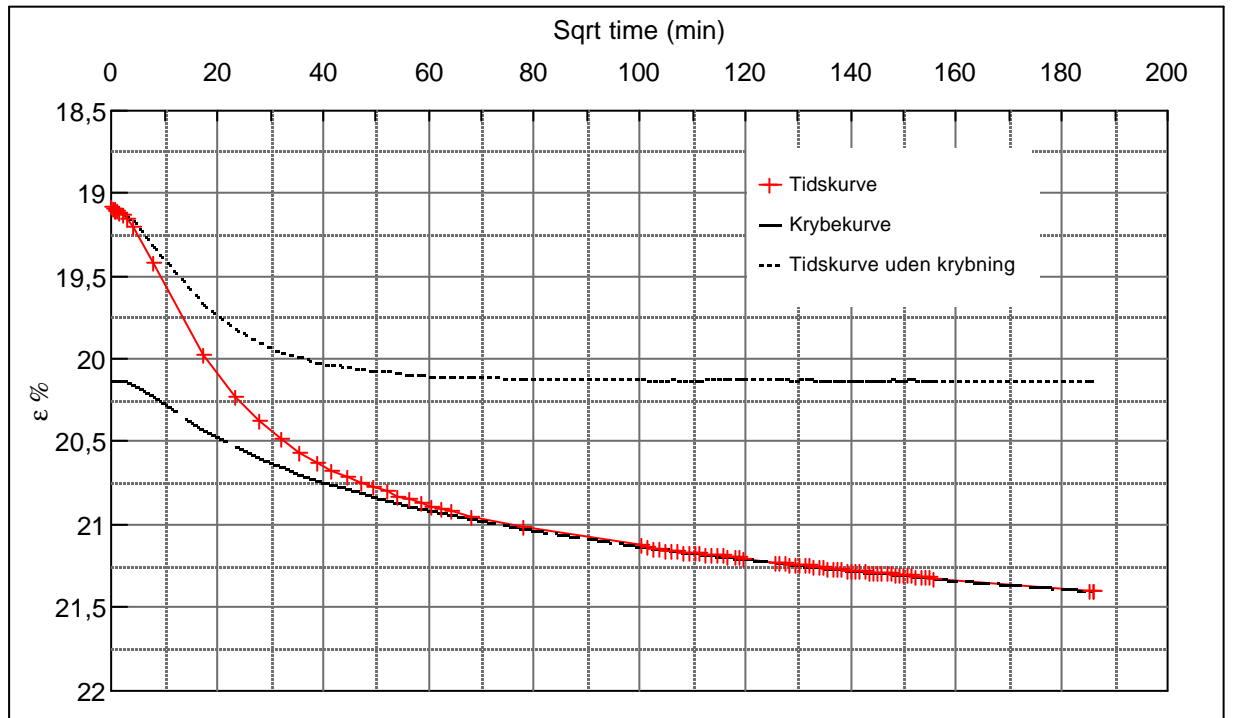
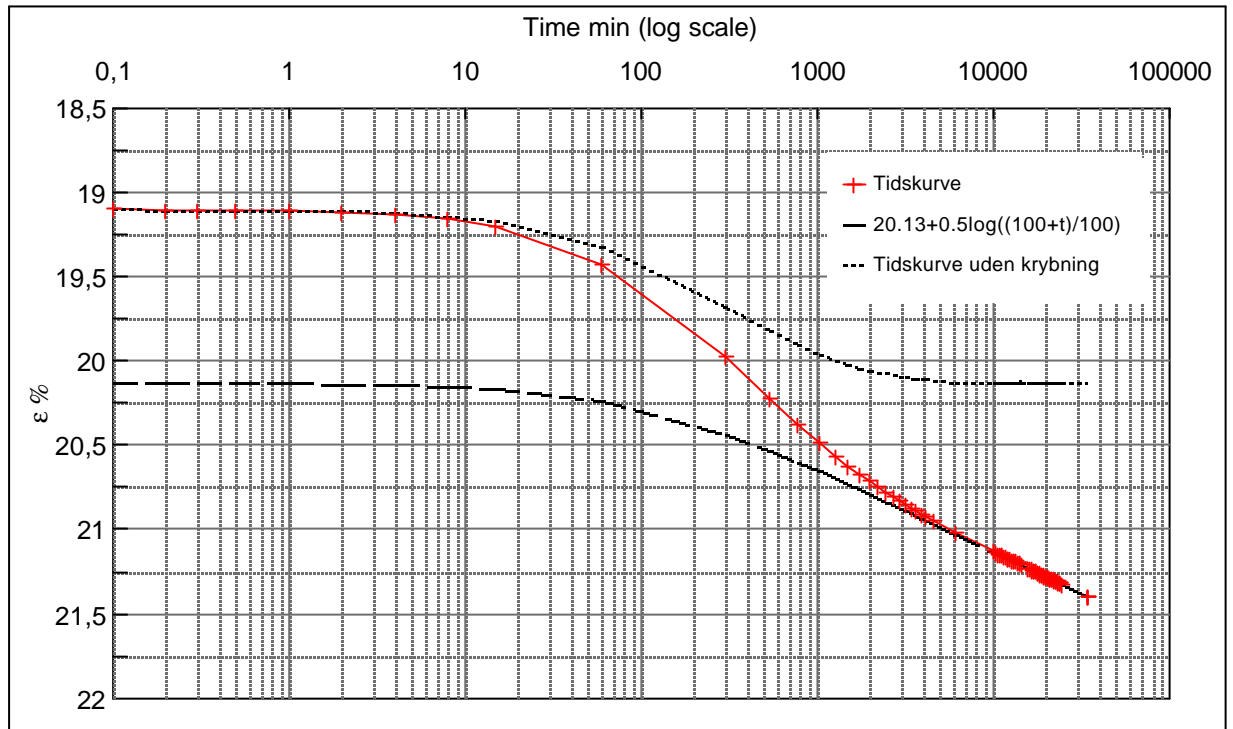
Step no 12	σ	kPa	ε	%	ε_i		tc in sec	24000
	Before	2.396,4	ε_0	15,92	ε_c %	18,01	K i kPa	49.755
	After	3.437,3	$\varepsilon_{\sim\#}$	19,09	ε_s	0,6	k10 m/sec	8,0E-12
					ε_{kryb}	1,07	ck10 m ² /sec	4,04E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 7.14
Approved:		Check:

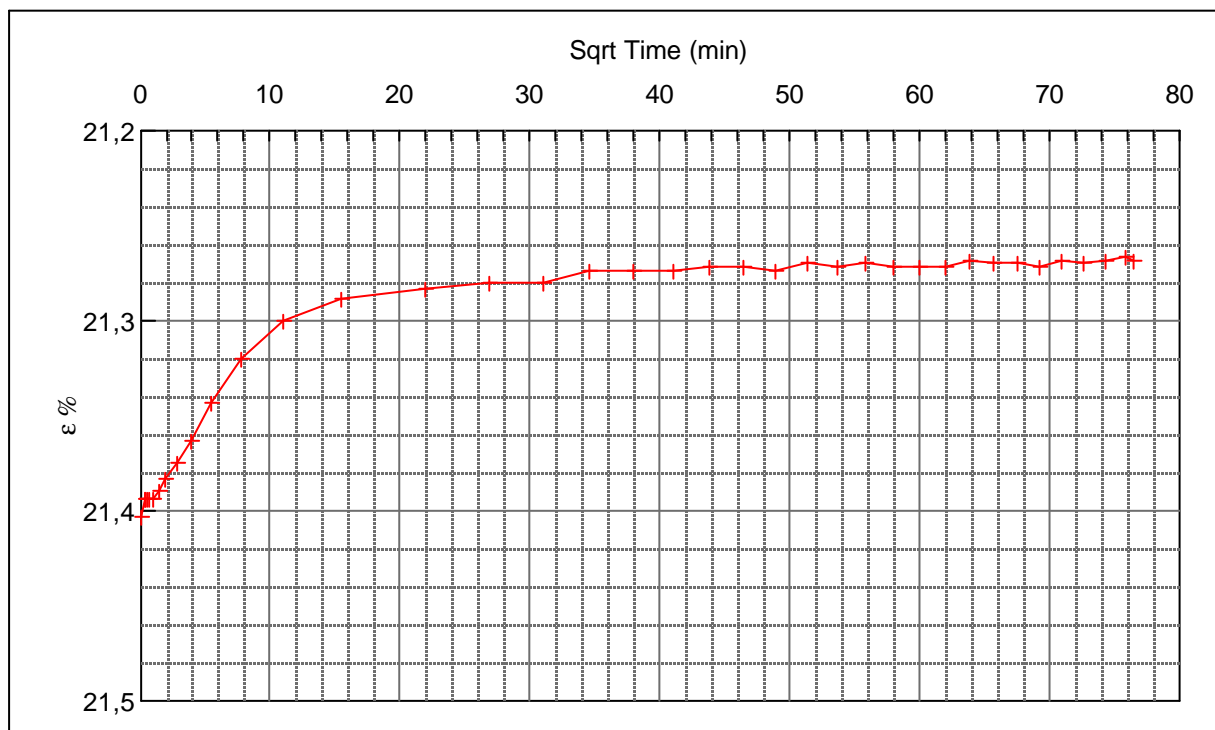
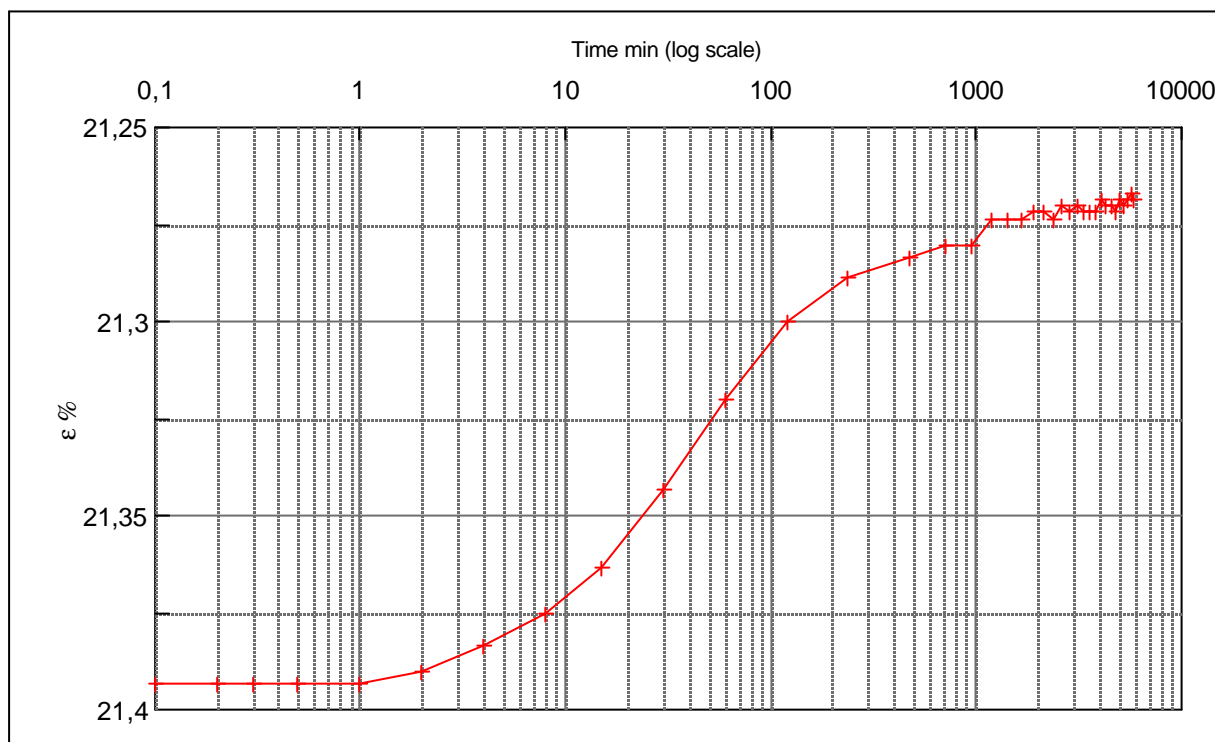
Step no 13	σ	kPa	ϵ	%	ϵ_i		tc in sec	21660
	Before	3.437,3	ϵ_0	19,09	ϵ_c %	20,13	K i kPa	99.605
	After	4.478,2	$\epsilon_{\sim\#}$	21,40	ϵ_s	0,5	k10 m/sec	4,4E-12
					ϵ_{kryb}	1,27	ck10 m ² /sec	4,48E-08



Material: Clay, marine, Lateglacial		
Bor no :	1	Depth: 8 m.b.s
Lab. no:	K6	Insitu stress. 90 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 7.15
Approved:		Check:

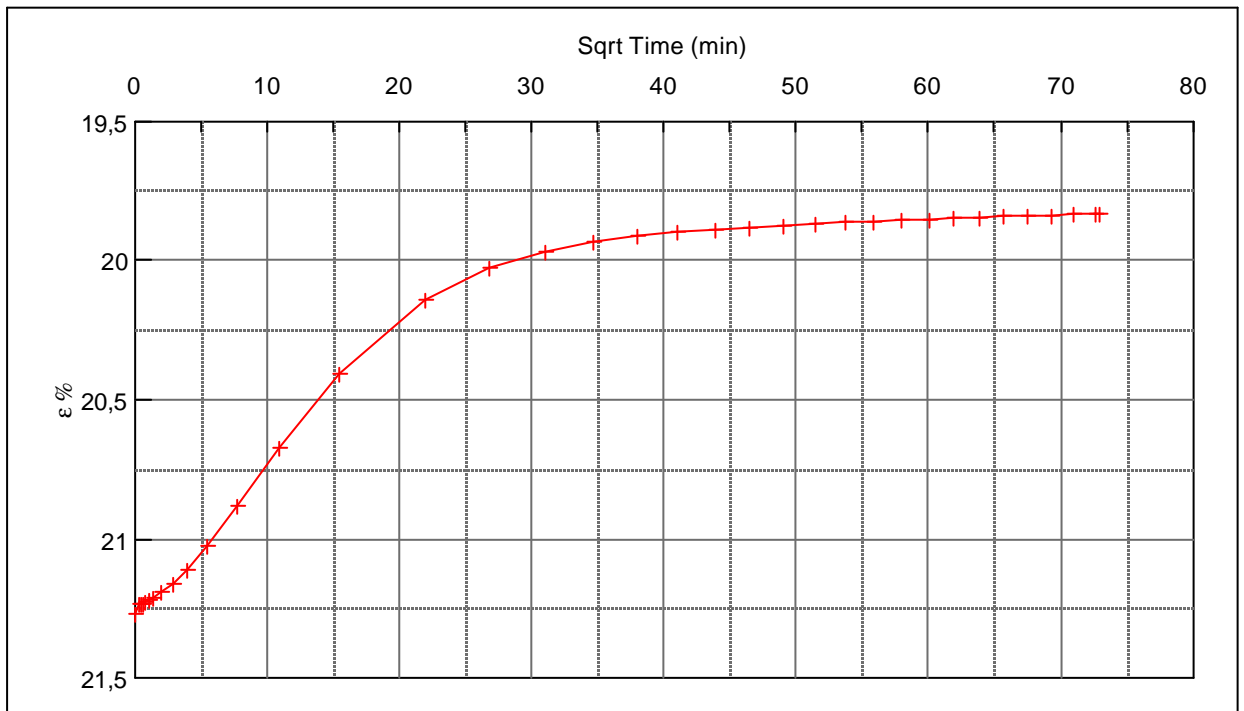
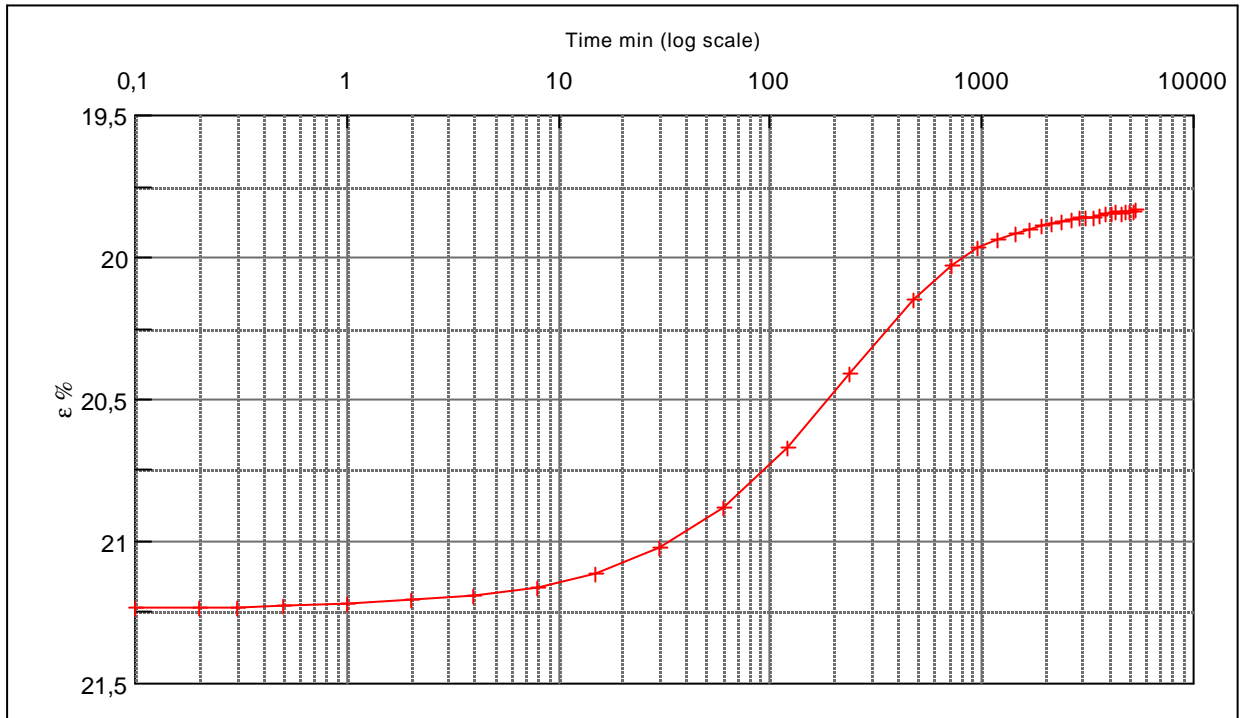
Step no 14	σ	kPa	ϵ	%	ϵ_i	tc in sec	10140
	Before	4.478,2	ϵ_0	21,40	ϵ_c %	K i kPa	780.655
	After	3.437,3	$\epsilon_{-#}$	21,27	ϵ_s	k10 m/sec	1,2E-12
					ϵ_{kryb}	ck10 m ² /sec	9,56E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	8 m.b.s
Lab. no:	K6	Insitu stress.	90 kPa

Job: Nr. Lyngby		AAU
		Encl. No 7.16
Executed:	AMS/gt	Check:
Approved:		

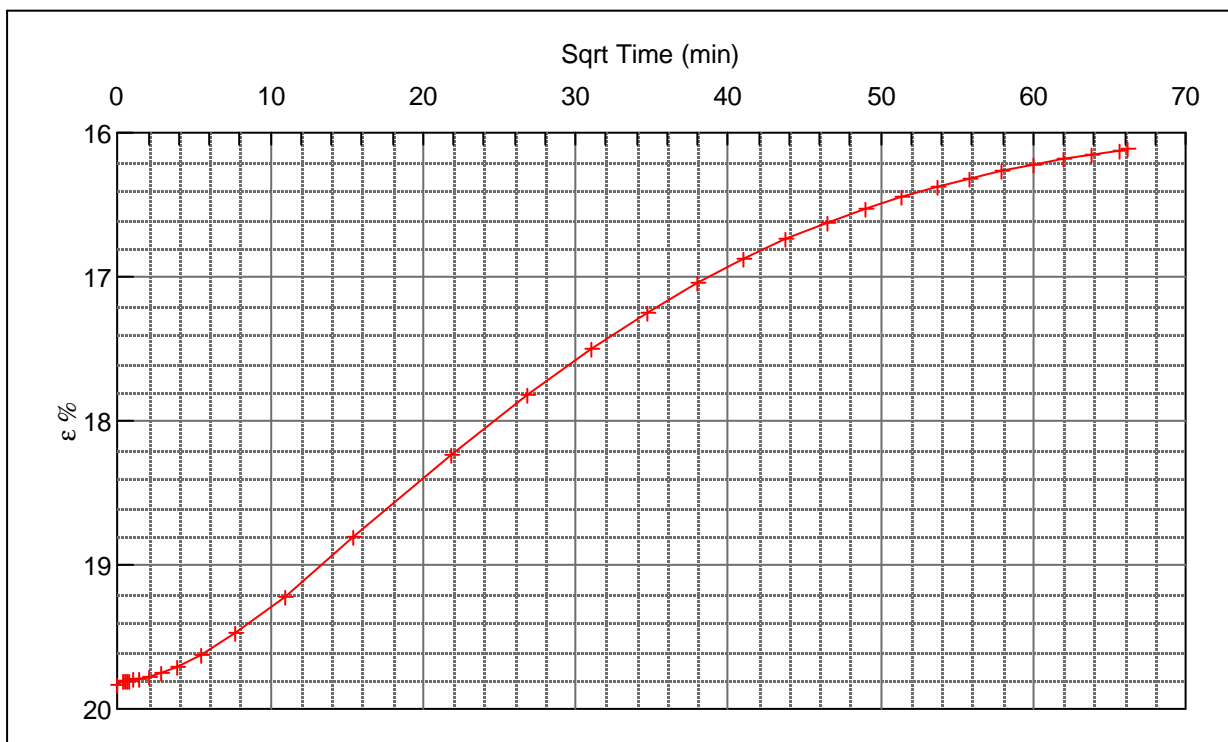
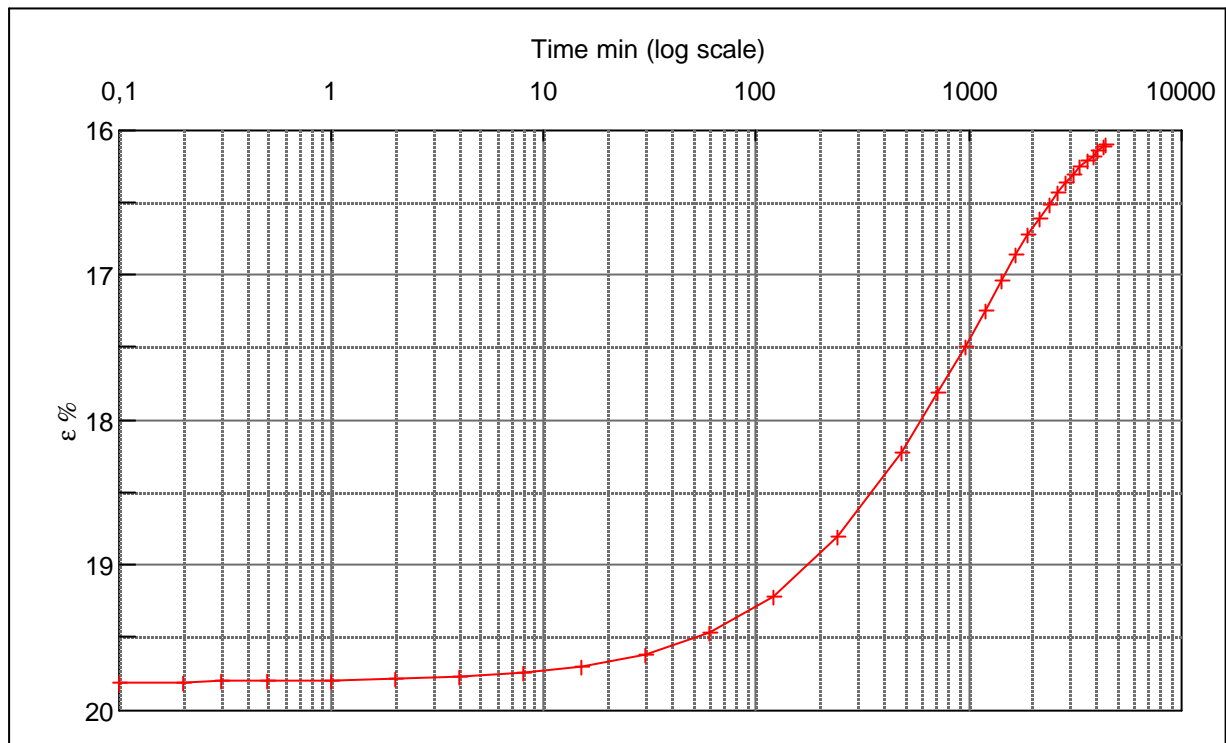
Step no 15	σ	kPa	ϵ	%	ϵ_i		tc in sec	37500
	Before	3.437,3	ϵ_0	21,27	ϵ_c %	19,83	K i kPa	144.733
	After	1.355,6	$\epsilon_{\sim\#}$	19,83	ϵ_s		k10 m/sec	1,8E-12
					ϵ_{kryb}		ck10 m ² /sec	2,59E-08



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	8 m.b.s
Lab. no:	K6	Insitu stress.	90 kPa

Job:		AAU	
Nr. Lyngby		Encl. No	
		7.17	
Executed:		AMS/gt	Check:
Approved:			

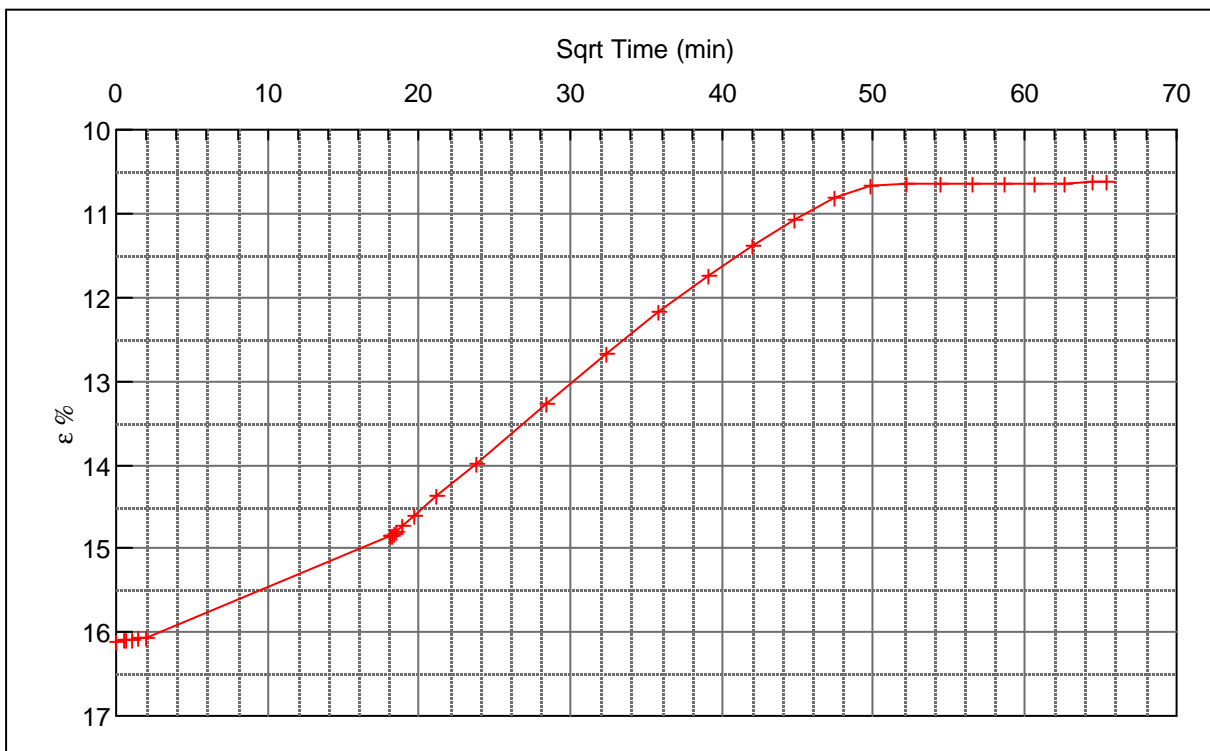
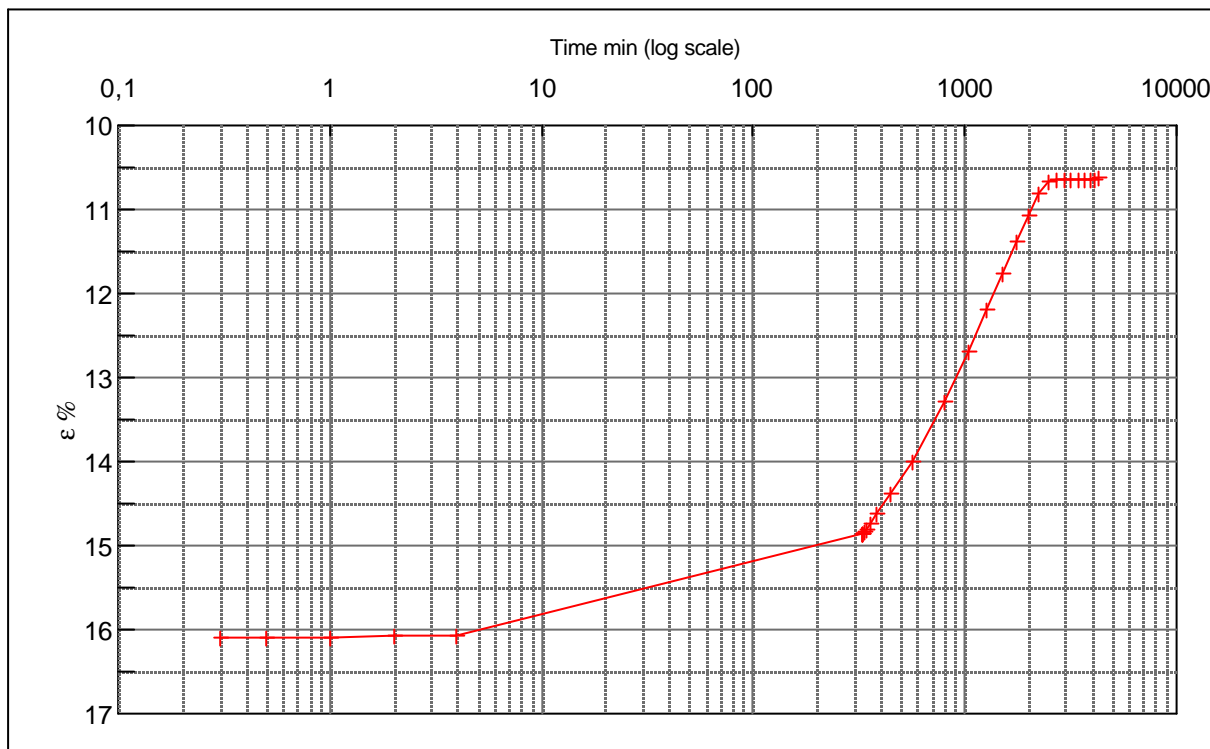
Step no 16	σ	kPa	ε	%	ε_i		tc in sec	126960
	Before	1.355,6	ε_0	19,83	ε_c %	16,10	K i kPa	27.918
	After	314,7	$\varepsilon_{-#}$	16,10	ε_s		k10 m/sec	2,7E-12
					ε_{kryb}		ck10 m^2 /sec	7,64E-09



Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	8 m.b.s
Lab. no:	K6	Insitu stress.	90 kPa

Job: Nr. Lyngby		AAU
		Encl. No 7.18
Executed:	AMS/gt	Check:
Approved:		

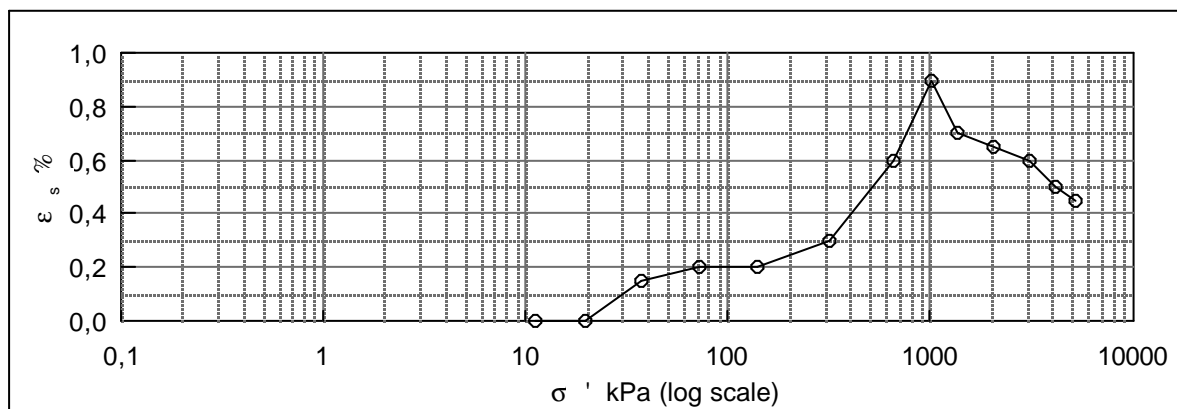
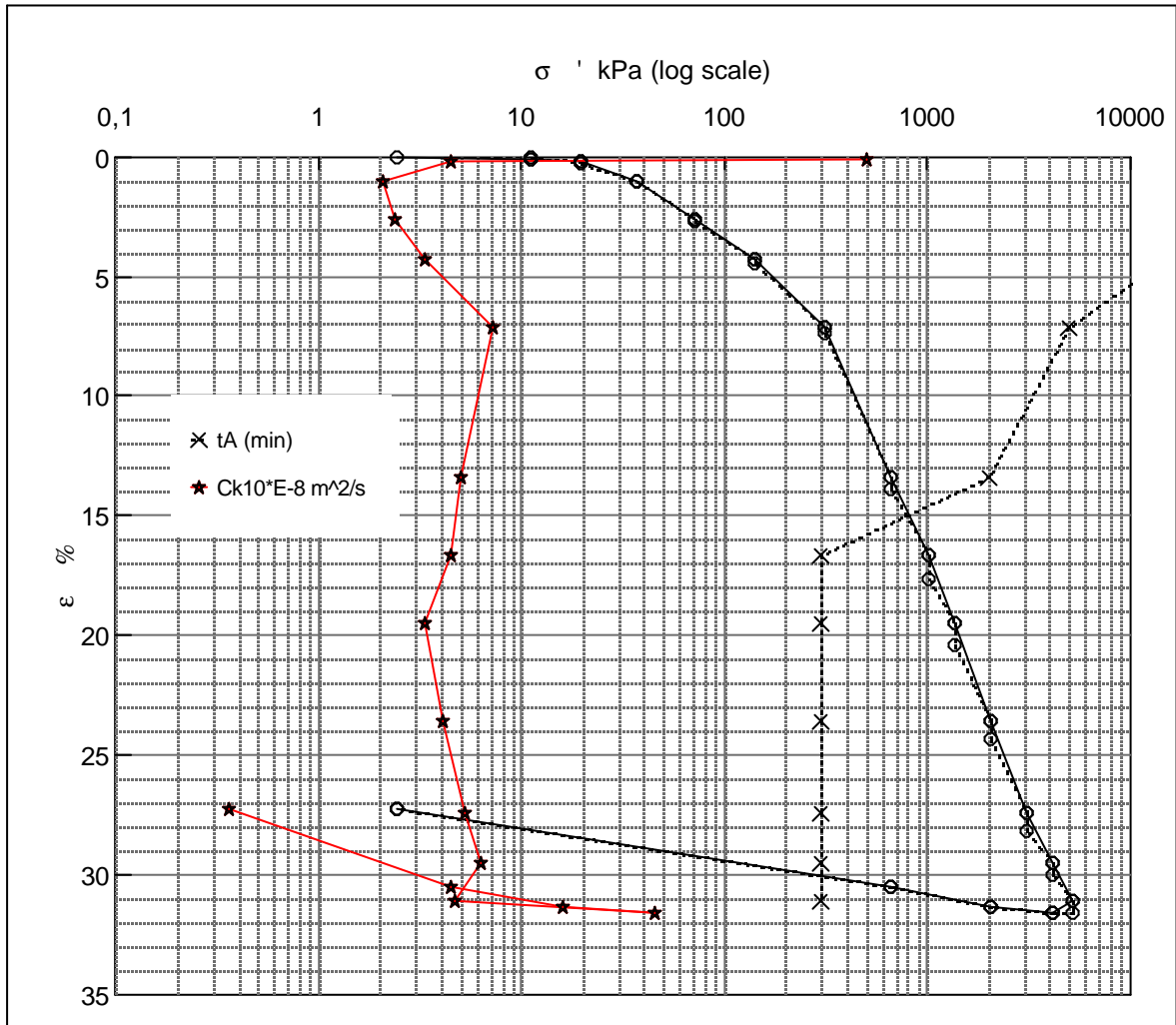
Step no 17	σ	kPa	ε	%	ε_i	tc in sec	132540
	Before	314,7	ε_0	16,10	ε_c %	K i kPa	5.703
	After	2,4	$\varepsilon_{-#}$	10,63	ε_s	k10 m/sec	1,3E-11
					ε_{kryb}	ck10 m^2 /sec	7,32E-09



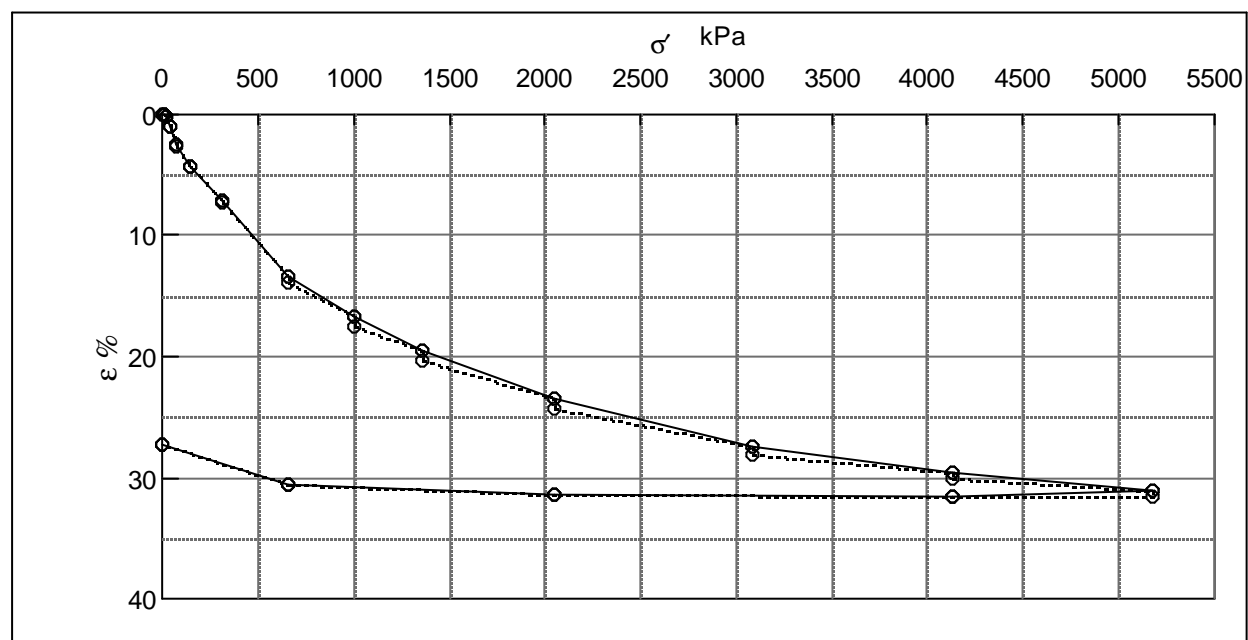
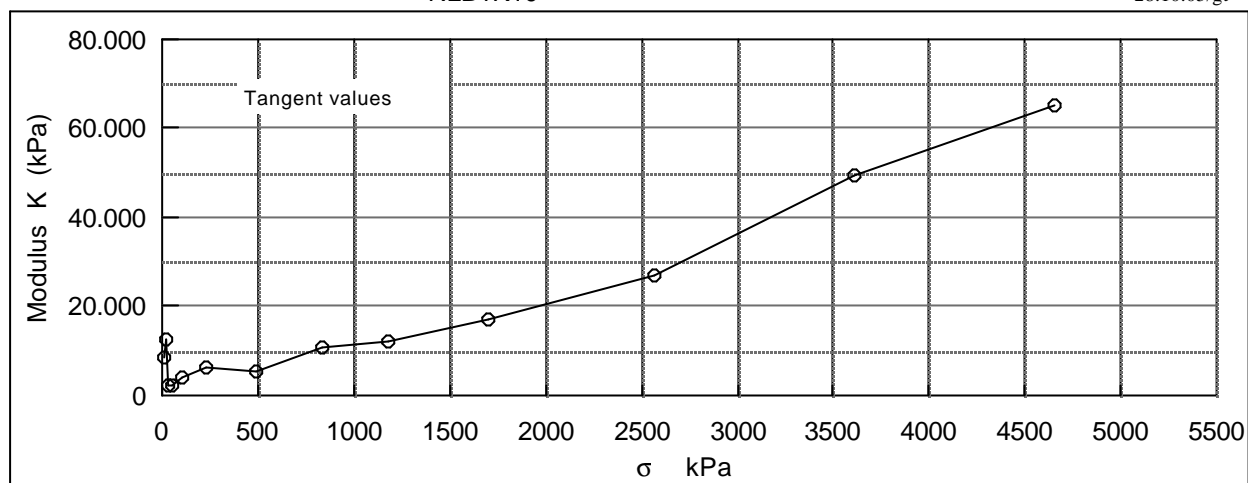
Material: Clay, marine, Lateglacial			
Bor no :	1	Depth:	8 m.b.s
Lab. no:	K6	Insitu stress.	90 kPa

Job: Nr. Lyngby		AAU
Executed:		Encl. No 7.19
AMS/gt		Check:
Approved:		

Description of soil: Clay. marine, Lateglacial			Water content %	Before	After
			Bulk density Mg/m ³	39,2	25,7
			Grain density Mg/m ³	1,8	2
			Void ratio	2,7	
Bor no : 1	Overburden pressure σ'_o	145 kPa	Degr. of Saturation %	1,1	0,69
Lab. no: K10	Vane strength c_v	120 kPa	Dimension H x D mm	81	100
Level : 13.5 m.b.s	CPT - value q_c	MPa		30x60	21.5x60

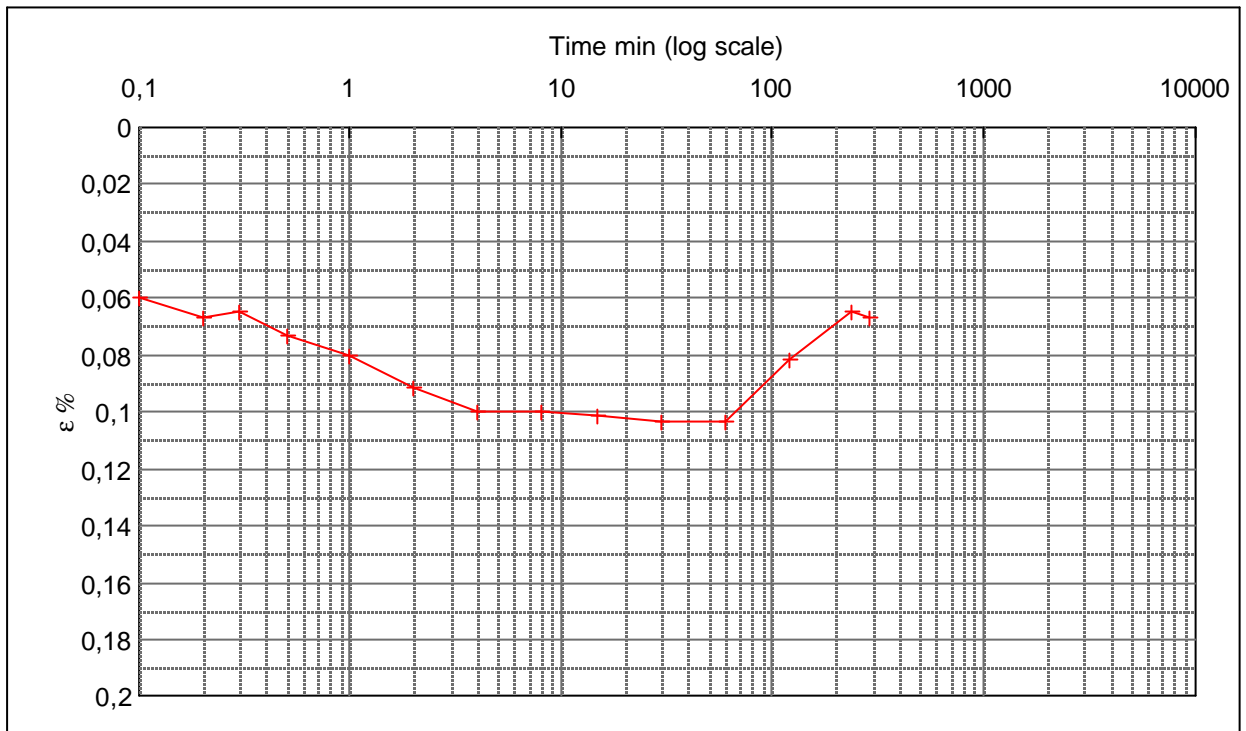


Job: Nr. Lyngby		AAU
		Encl. No 8.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ	ϵ_c	ϵ_s	Ck10	σ_m	K	w
		kPa	%	% / lct	m ² /s	kPa	kPa	%
		2,4	0,00					49,5
		11,1	0,10	0,00	5,0E-06	6,8	8673,9	49,4
Q	20 %	19,8	0,17	0,00	4,5E-08	15,4	12391,3	49,3
Qs	0,9 %	37,1	1,00	0,15	2,1E-08	28,5	2090,1	48,6
σ_{pc}	~700 kPa	71,8	2,60	0,20	2,4E-08	54,5	2168,5	47,2
		141,2	4,28	0,20	3,3E-08	106,5	4130,4	45,7
		314,7	7,10	0,30	7,2E-08	228,0	6151,7	43,3
		661,6	13,36	0,60	5,0E-08	488,2	5542,5	37,8
		1.008,6	16,66	0,90	4,5E-08	835,1	10513,9	34,9
		1.355,6	19,48	0,70	3,3E-08	1.182,1	12303,5	32,5
		2.049,5	23,55	0,65	4,0E-08	1.702,5	17049,5	28,9
		3.090,4	27,40	0,60	5,3E-08	2.569,9	27035,7	25,5
		4.131,2	29,50	0,50	6,3E-08	3.610,8	49565,4	23,7
		5.172,1	31,10	0,45	4,7E-08	4.651,7	65054,6	22,3
		4.131,2	31,55		4,5E-07	4.651,7	-231305,2	21,9
		2.049,5	31,32		1,6E-07	3.090,4	913046,8	22,1
		661,6	30,48		4,5E-08	1.355,6	164825,5	22,8
		2,4	27,21		3,6E-09	332,0	20159,6	25,7
Remark:		Job:					AAU	
		Nr. Lyngby					Encl. No	
							8.2	
		Executed: AMS/gt					Check:	
		Approved:						

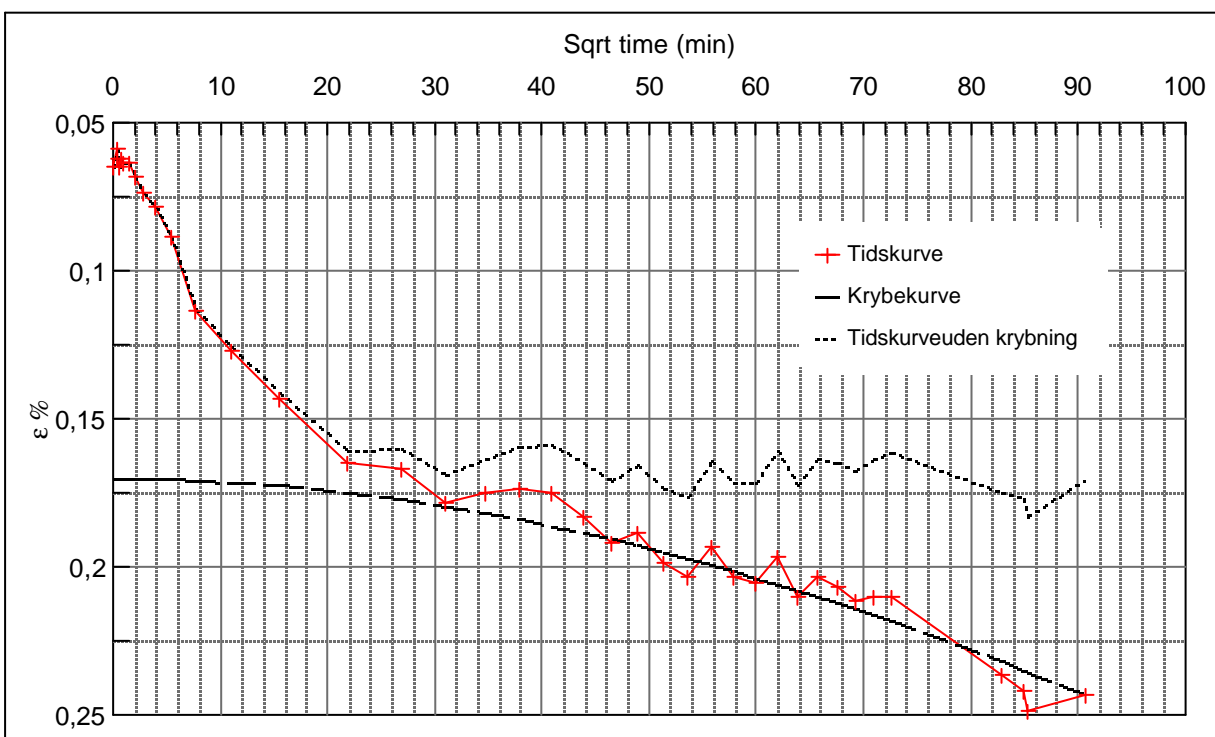
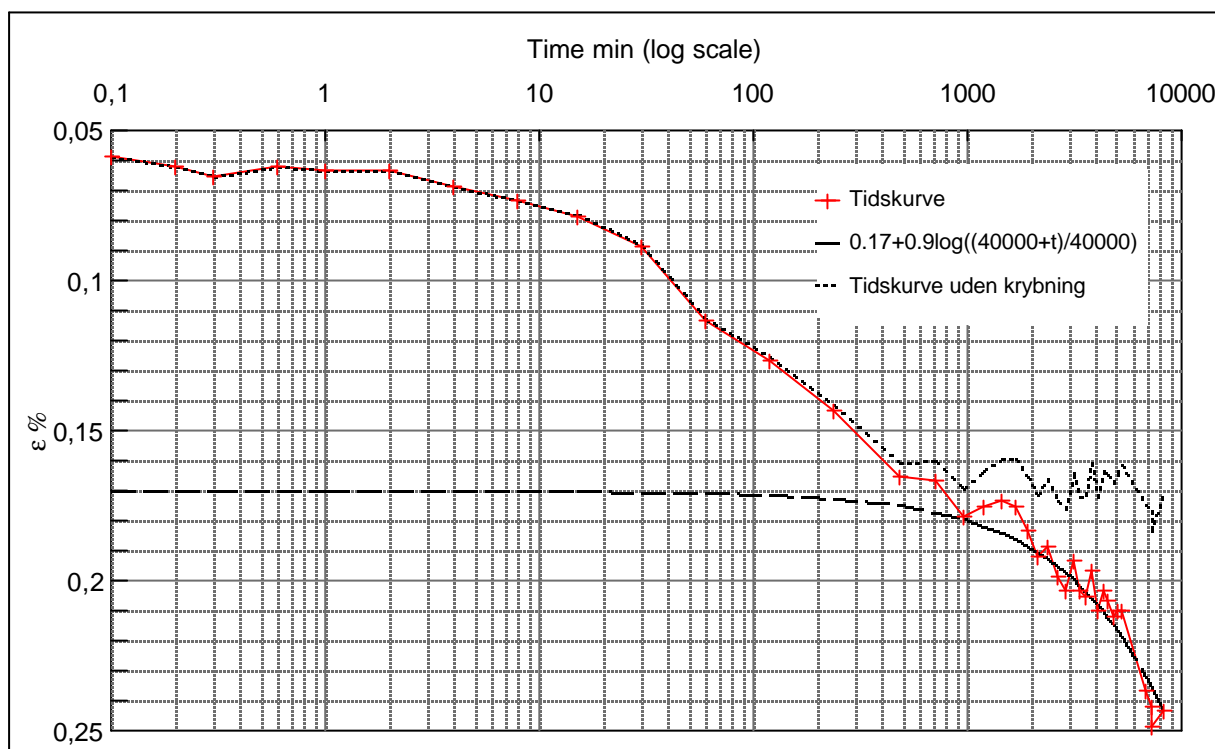
Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	194,4
	Before	2,4	ϵ_0	0,00	ϵ_c %	0,1	K i kPa	8.674
	After	11,1	$\epsilon_{\sim\#}$	0,07	ϵ_s		k10 m/sec	5,6E-09
					ϵ_{kryb}	(0,03)	ck10 m ² /sec	4,99E-06



Material: Clay. marine, Lateglacial	
Bor no : 1	Depth: 13.5 m.b.s
Lab. no: K10	Insitu stress. 145 kPa

Job: Nr. Lyngby	AAU
	Encl. No 8.3
Executed: AMS/gt	Check:
Approved:	

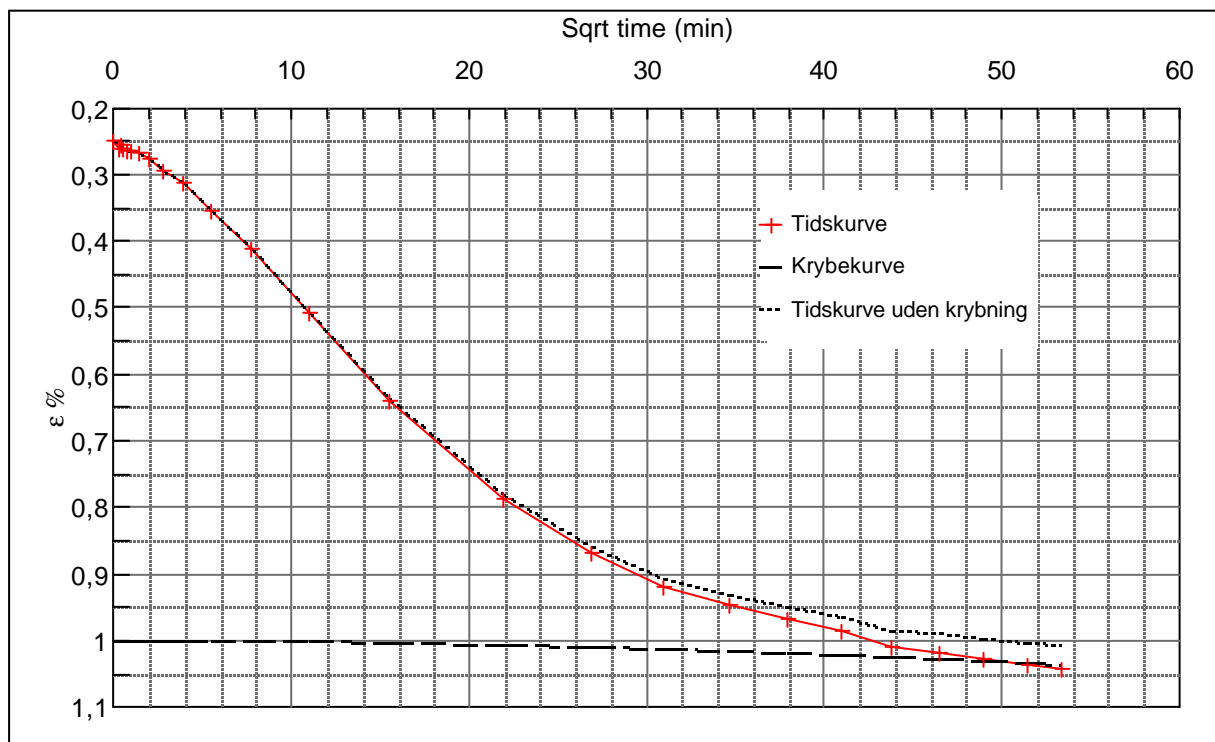
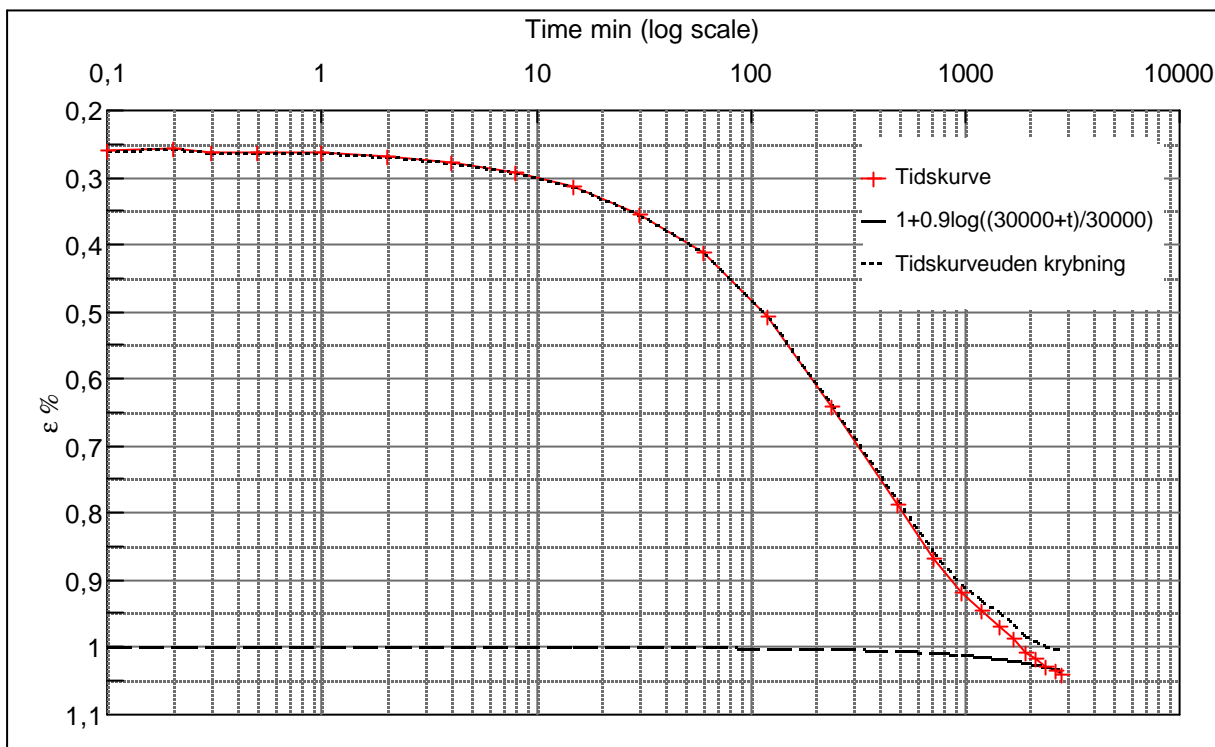
Step no 2	σ	kPa	ϵ	%	ϵ_i	tc in sec	21660
	Before	11,1	ϵ_0	0,06	ϵ_c %	K i kPa	8.261
	After	19,8	$\epsilon_{-#}$	0,24	ϵ_s	k10 m/sec	5,3E-11
					ϵ_{kryb}	ck10 m ² /sec	4,48E-08



Material: Clay. marine, Lateglacial			
Bor no :	1	Depth:	13.5 m.b.s
Lab. no:	K10	Insitu stress.	145 kPa

Job:		AAU
Nr. Lyngby		Encl. No 8.4
Executed:	AMS/gt	Check:
Approved:		

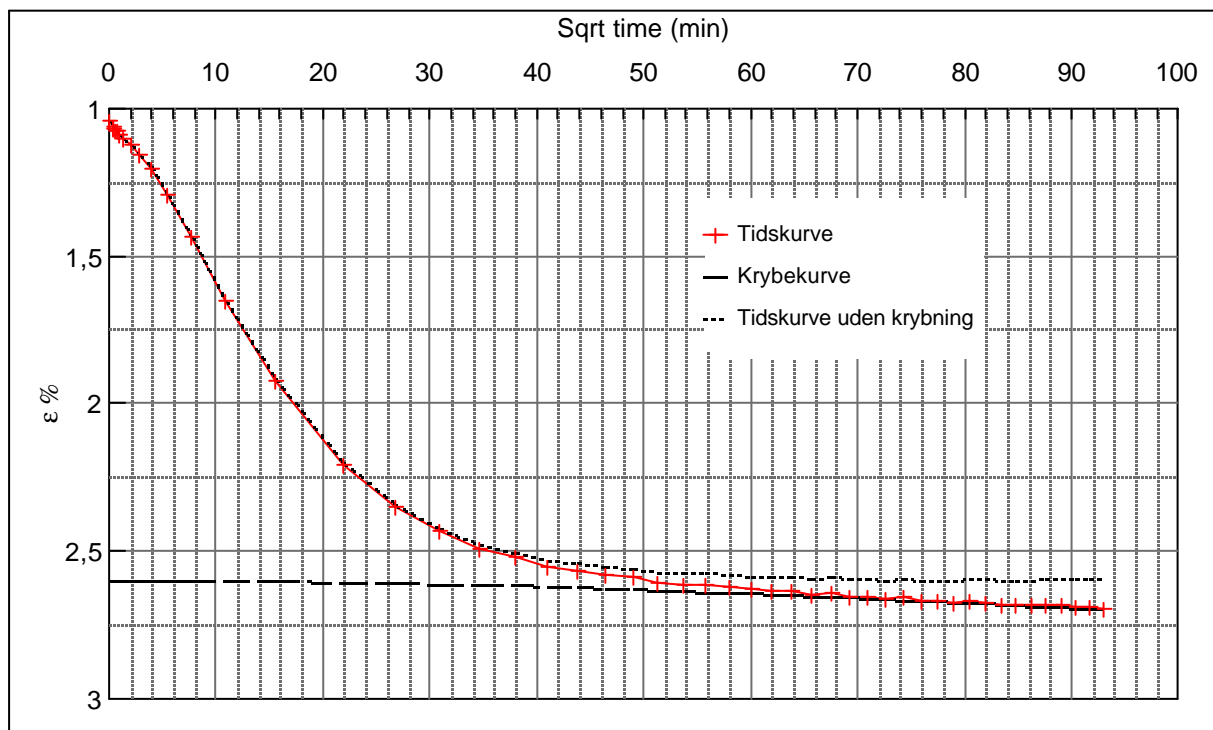
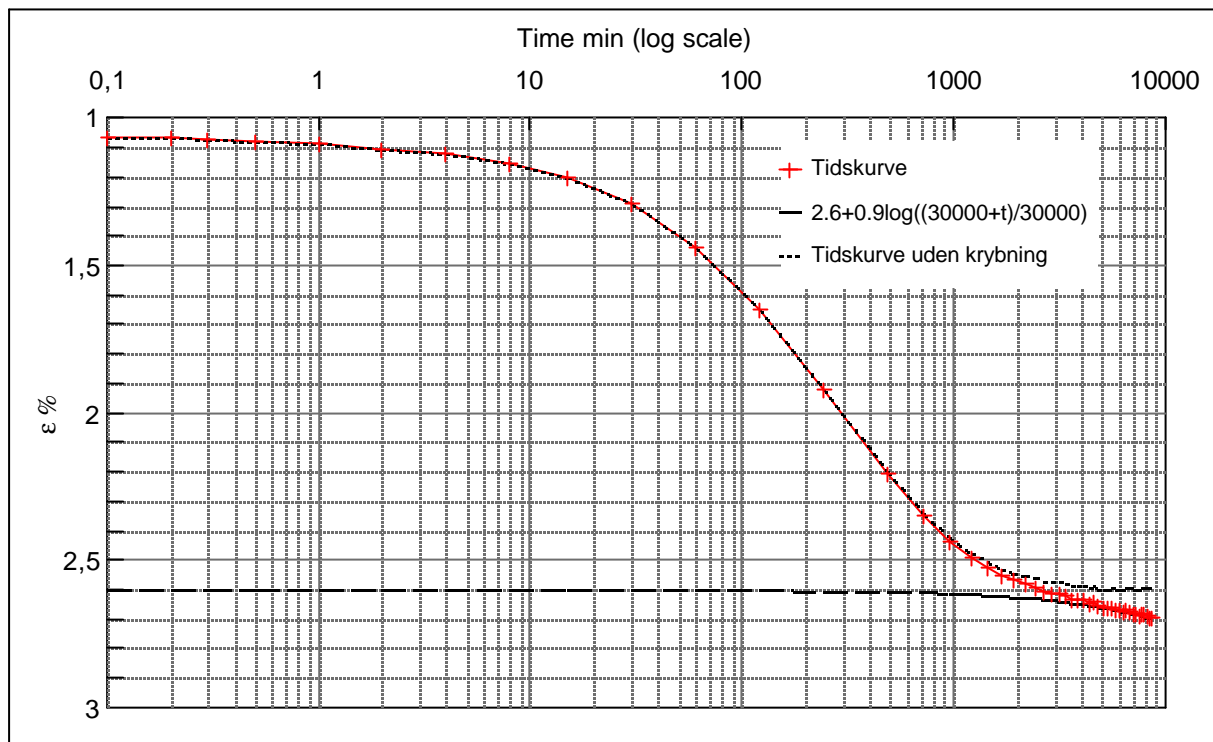
Step no 3	σ	kPa	ϵ	%	ϵ_i		tc in sec	47040
	Before	19,8	ϵ_0	0,25	ϵ_c %	1	K i kPa	2.308
	After	37,1	$\epsilon_{\sim\#}$	1,04	ϵ_s	0,15	k10 m/sec	8,8E-11
					ϵ_{kryb}	0,04	ck10 m ² /sec	2,06E-08



Material: Clay. marine, Lateglacial		
Bor no :	1	Depth: 13.5 m.b.s
Lab. no:	K10	Insitu stress: 145 kPa

Job: Nr. Lyngby		AAU
		Encl. No 8.5
Executed:	AMS/gt	Check:
Approved:		

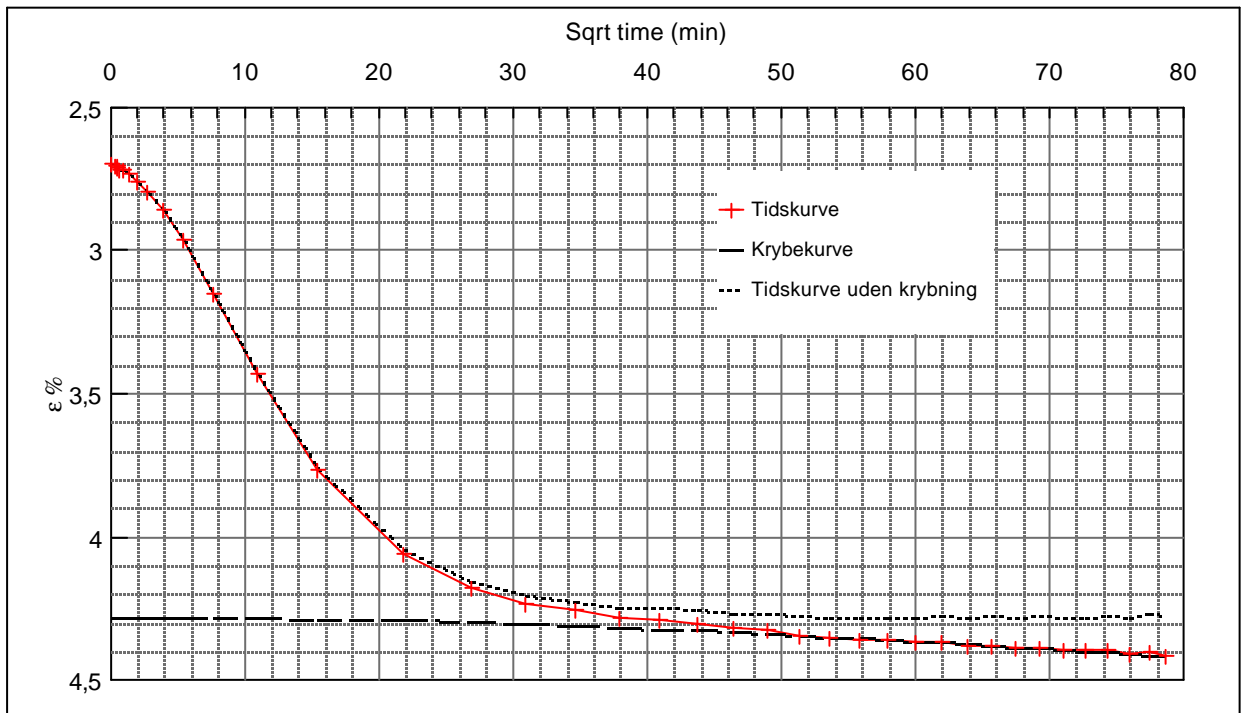
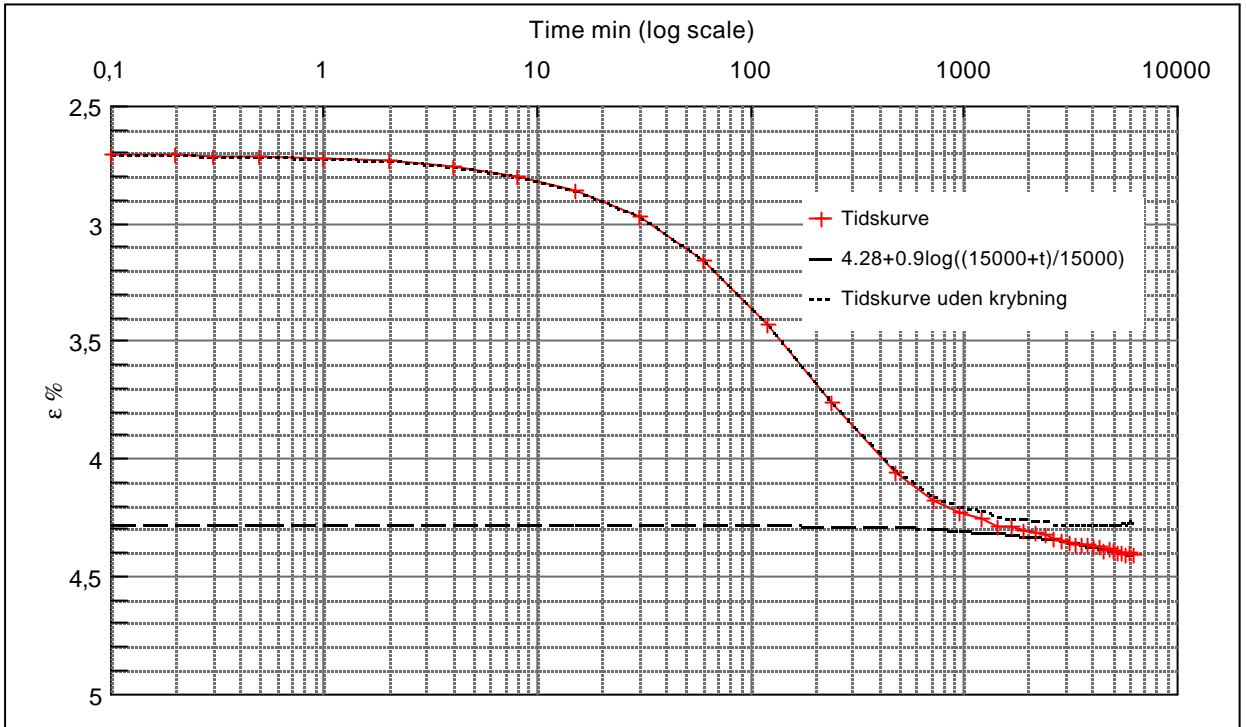
Step no 4	σ	kPa	ϵ	%	ϵ_i		tc in sec	40560
	Before	37,1	ϵ_0	1,04	ϵ_c %	2,6	K i kPa	2.229
	After	71,8	$\epsilon_{-#}$	2,70	ϵ_s	0,2	k10 m/sec	1,1E-10
					ϵ_{kryb}	0,10	ck10 m ² /sec	2,39E-08



Material: Clay. marine, Lateglacial		
Bor no :	1	Depth: 13.5 m.b.s
Lab. no:	K10	Insitu stress. 145 kPa

Job: Nr. Lyngby		AAU
		Encl. No 8.6
Executed:	AMS/gt	Check:
Approved:		

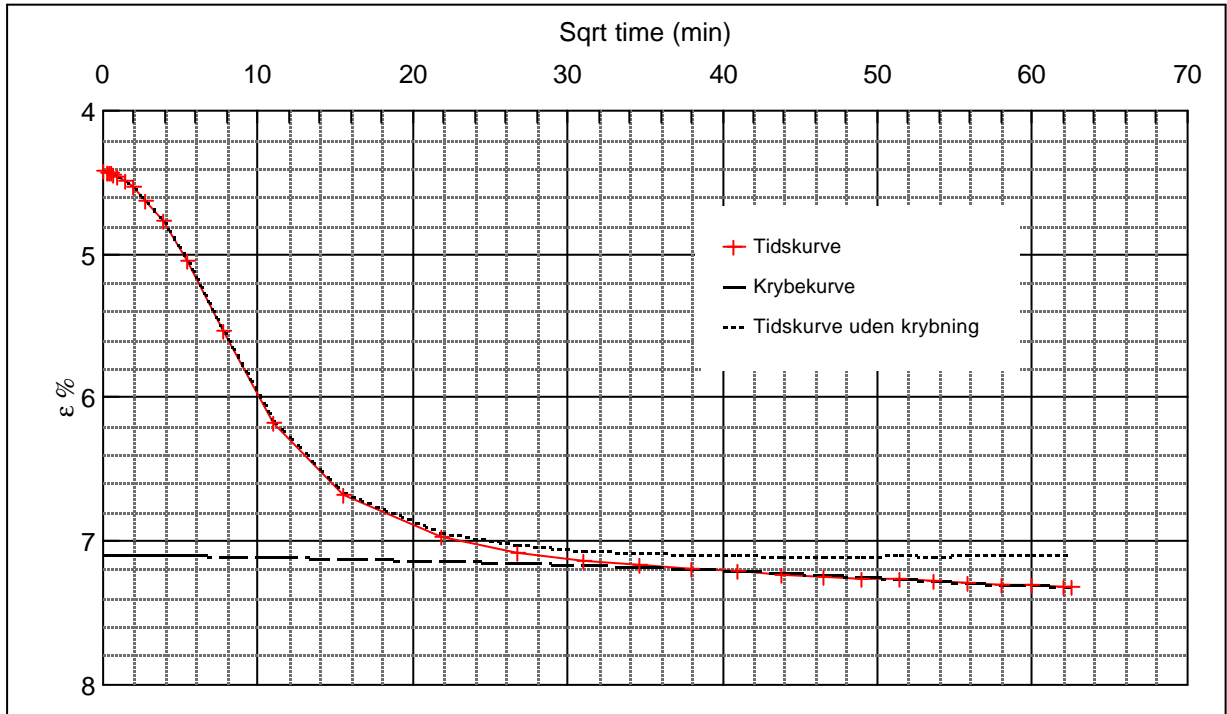
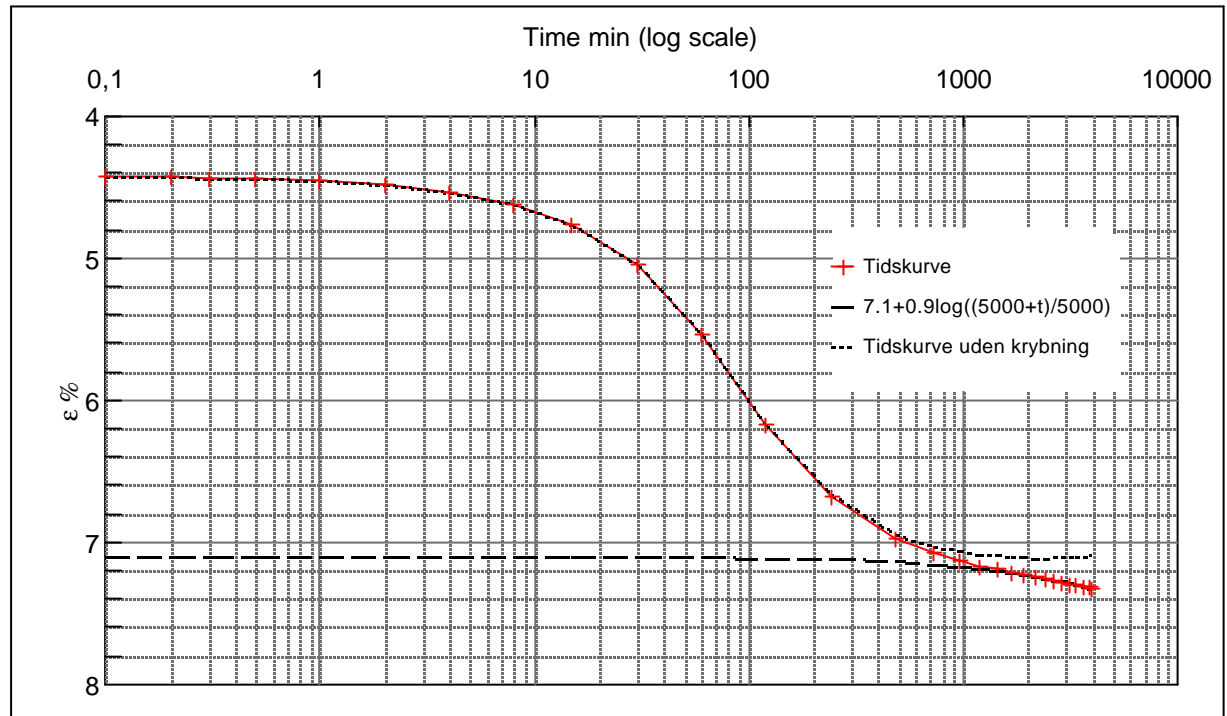
Step no 5	σ	kPa	ε	%	ε_i	tc in sec	29040
	Before	71,8	ε_0	2,70	ε_c %	K i kPa	4,383
	After	141,2	$\varepsilon_{\sim\#}$	4,41	ε_s	k10 m/sec	7,5E-11
					ε_{kyb}	ck10 m^2/sec	3,34E-08



Material: Clay. marine, Lateglacial	
Bor no :	1
Depth:	13.5 m.b.s
Lab. no:	K10
Insitu stress.	145 kPa

Job:		AAU
Nr. Lyngby		Encl. No 8.7
Executed:	AMS/gt	Check:
Approved:		

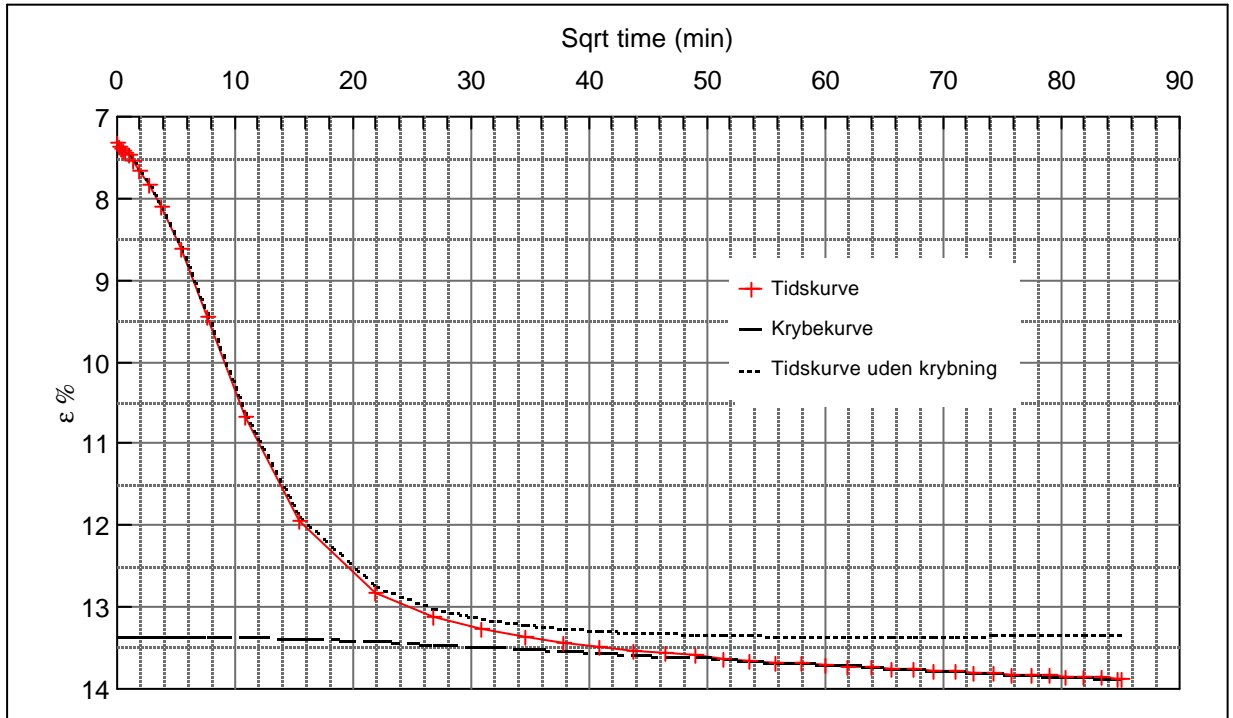
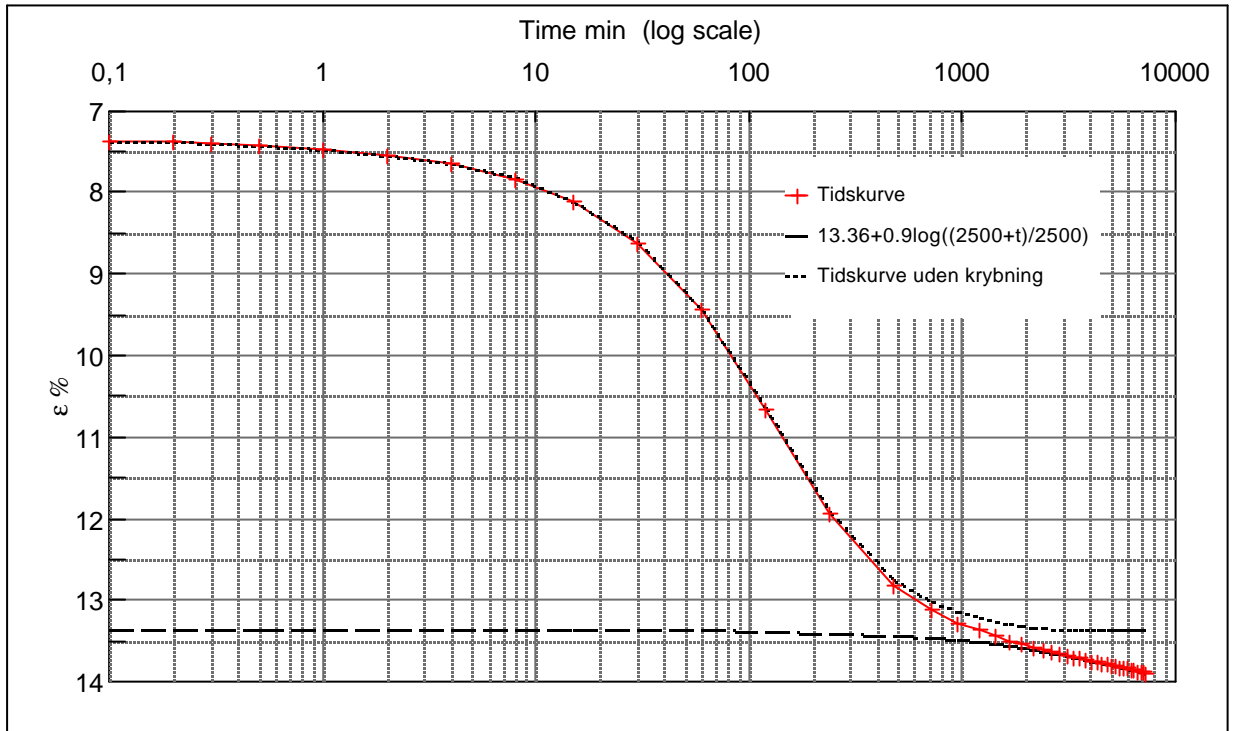
Step no 6	σ	kPa	ϵ	%	ϵ_i		tc in sec	13500
	Before	141,2	ϵ_0	4,41	ϵ_c %	7,1	K i kPa	6.449
	After	314,7	$\epsilon_{\sim\#}$	7,33	ϵ_s	0,3	k10 m/sec	1,1E-10
					ϵ_{kryb}	0,23	ck10 m ² /sec	7,18E-08



Material: Clay. marine, Lateglacial	
Bor no : 1	Depth: 13.5 m.b.s
Lab. no: K10	Insitu stress. 145 kPa

Job: Nr. Lyngby	AAU
	Encl. No 8.8
Executed: AMS/gt	Check:
Approved:	

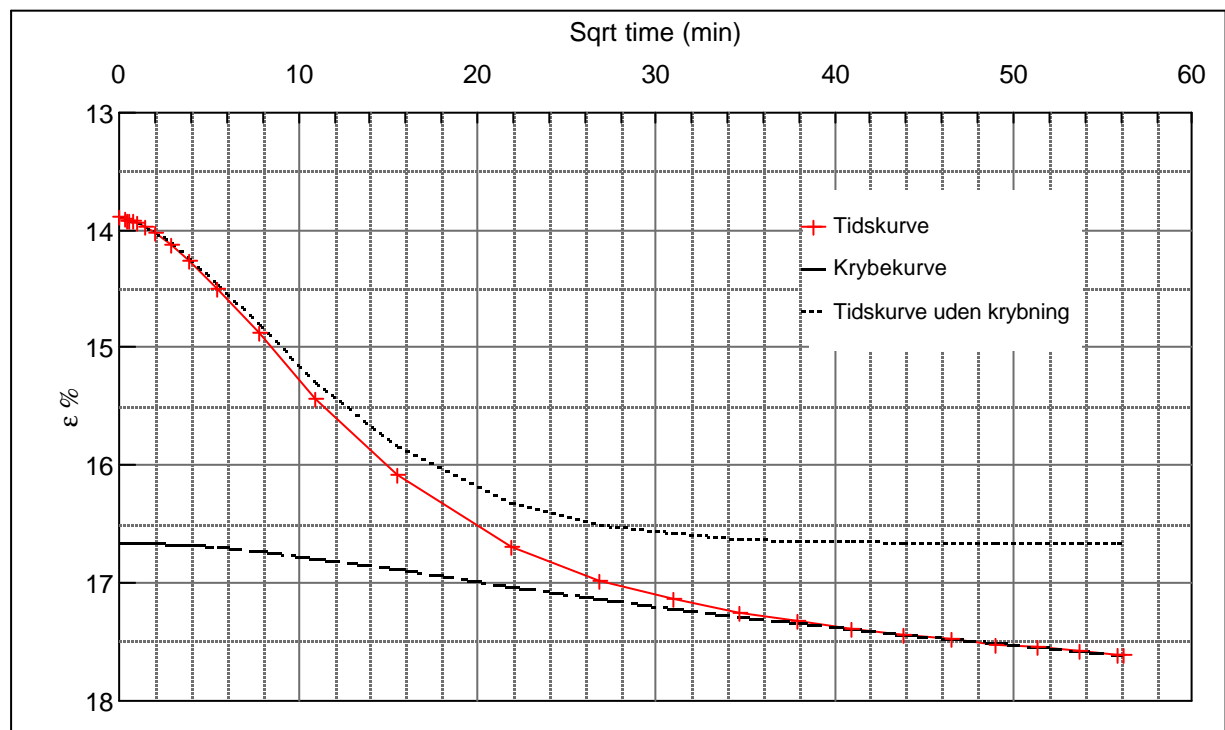
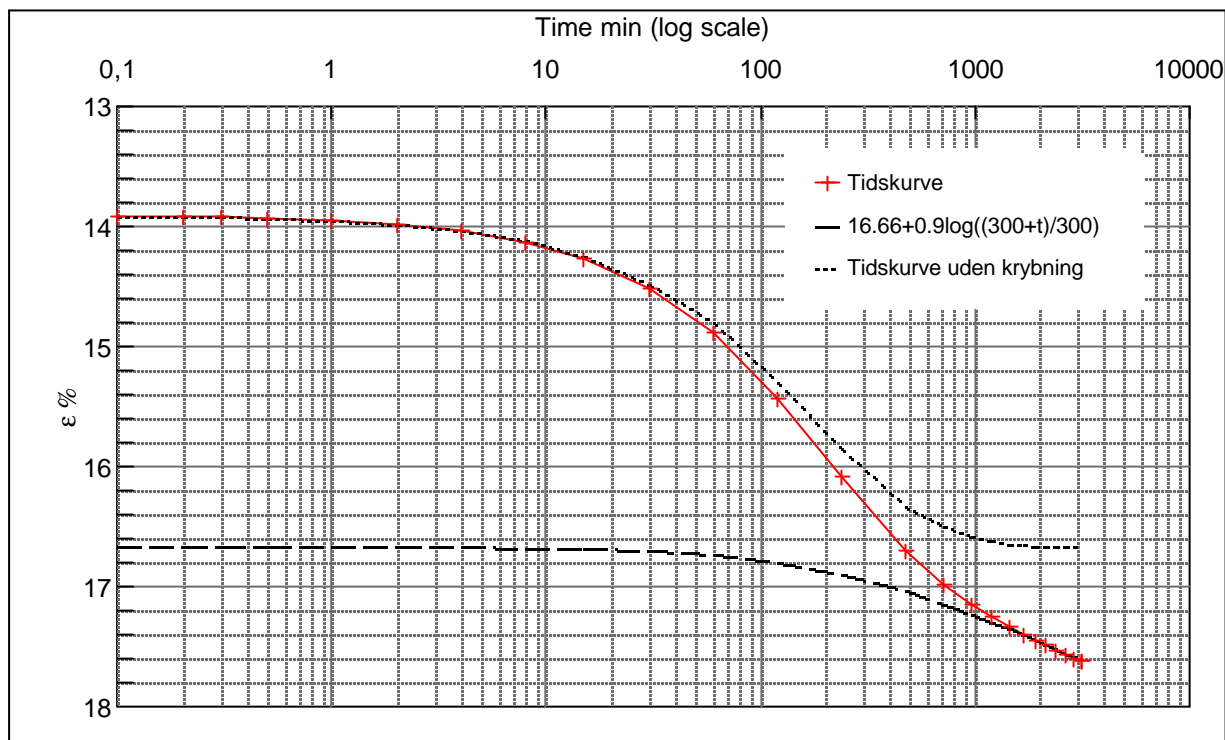
Step no 7	σ	kPa	ϵ	%	ϵ_i		tc in sec	19440
	Before	314,7	ϵ_0	7,32	ϵ_c %	13,36	K i kPa	5.748
	After	661,6	$\epsilon_{\sim\#}$	13,89	ϵ_s	0,6	k10 m/sec	8,5E-11
					ϵ_{kryb}	0,53	ck10 m ² /sec	4,99E-08



Material: Clay. marine, Lateglacial	
Bor no : 1	Depth: 13.5 m.b.s
Lab. no: K10	Insitu stress. 145 kPa

Job: Nr. Lyngby	AAU
	Encl. No 8.9
Executed: AMS/gt	Check:
Approved:	

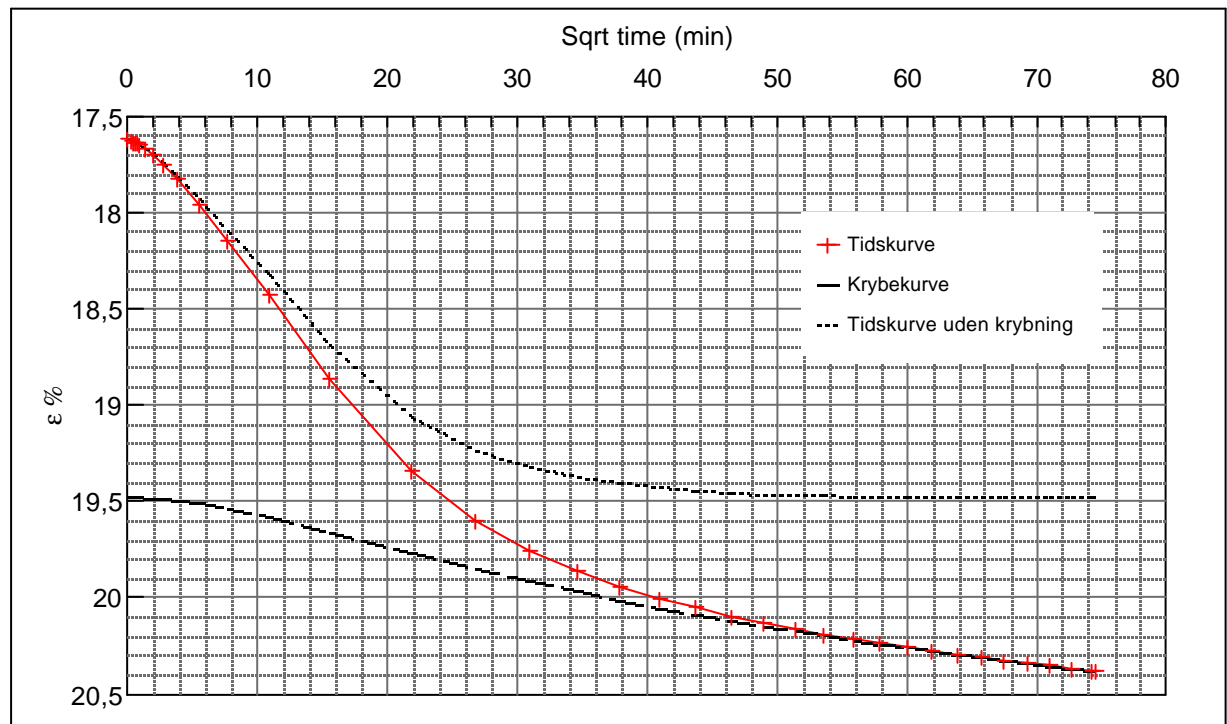
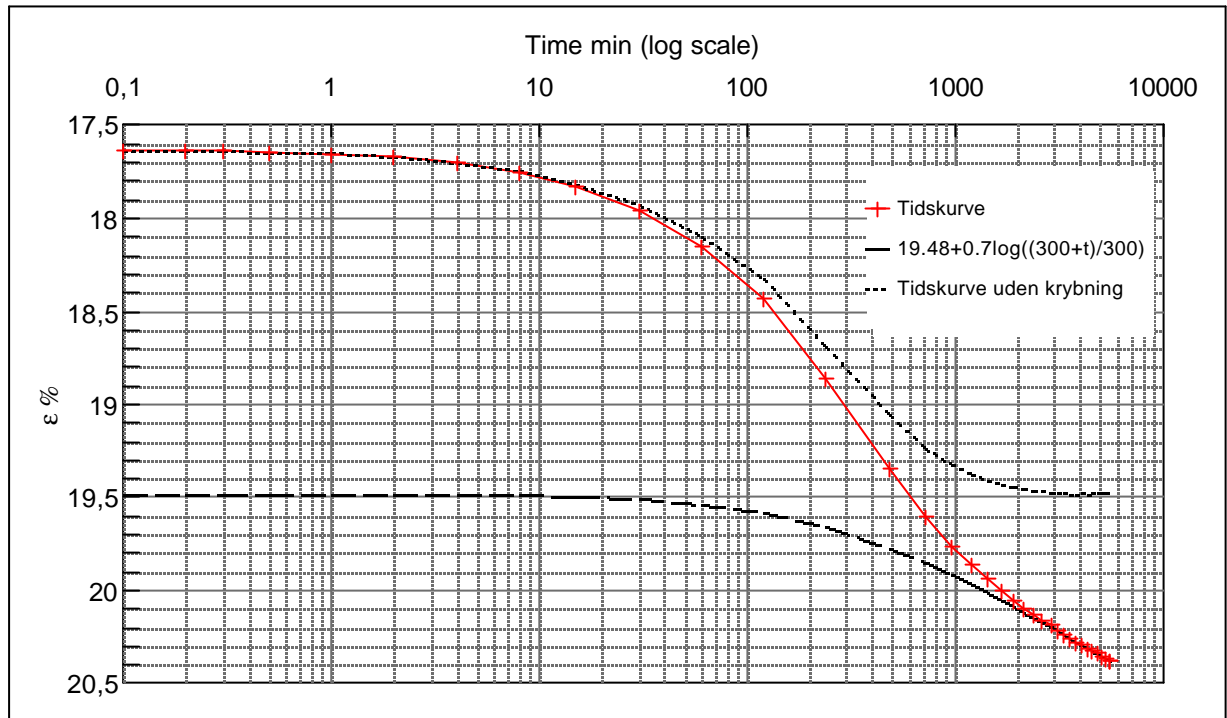
Step no 8	σ	kPa	ϵ	%	ϵ_i		tc in sec	21660
	Before	661,6	ϵ_0	13,89	ϵ_c %	16,66	K i kPa	12.526
	After	1.008,6	$\epsilon_{-#}$	17,61	ϵ_s	0,9	k10 m/sec	3,5E-11
					ϵ_{kryb}	0,95	ck10 m ² /sec	4,48E-08



Material: Clay. marine, Lateglacial			
Bor no :	1	Depth:	13.5 m.b.s
Lab. no:	K10	Insitu stress.	145 kPa

Job:		AAU
Nr. Lyngby		Encl. No 8.10
Executed:	AMS/gt	Check:
Approved:		

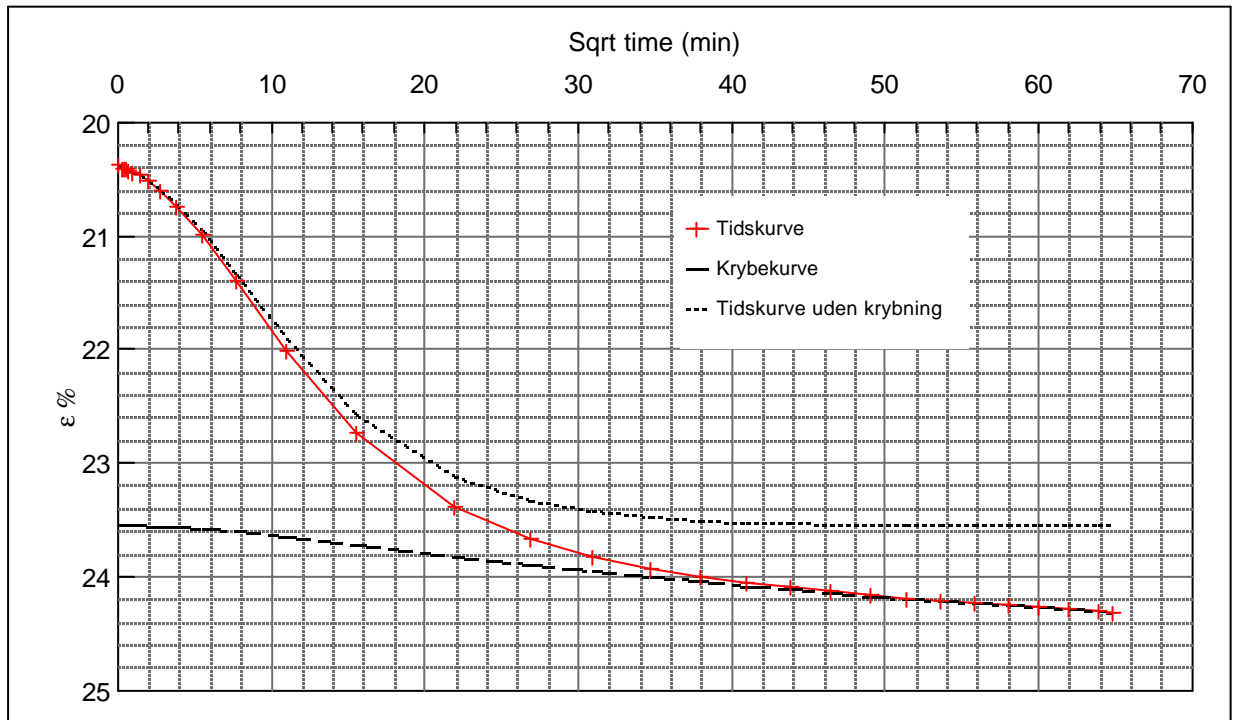
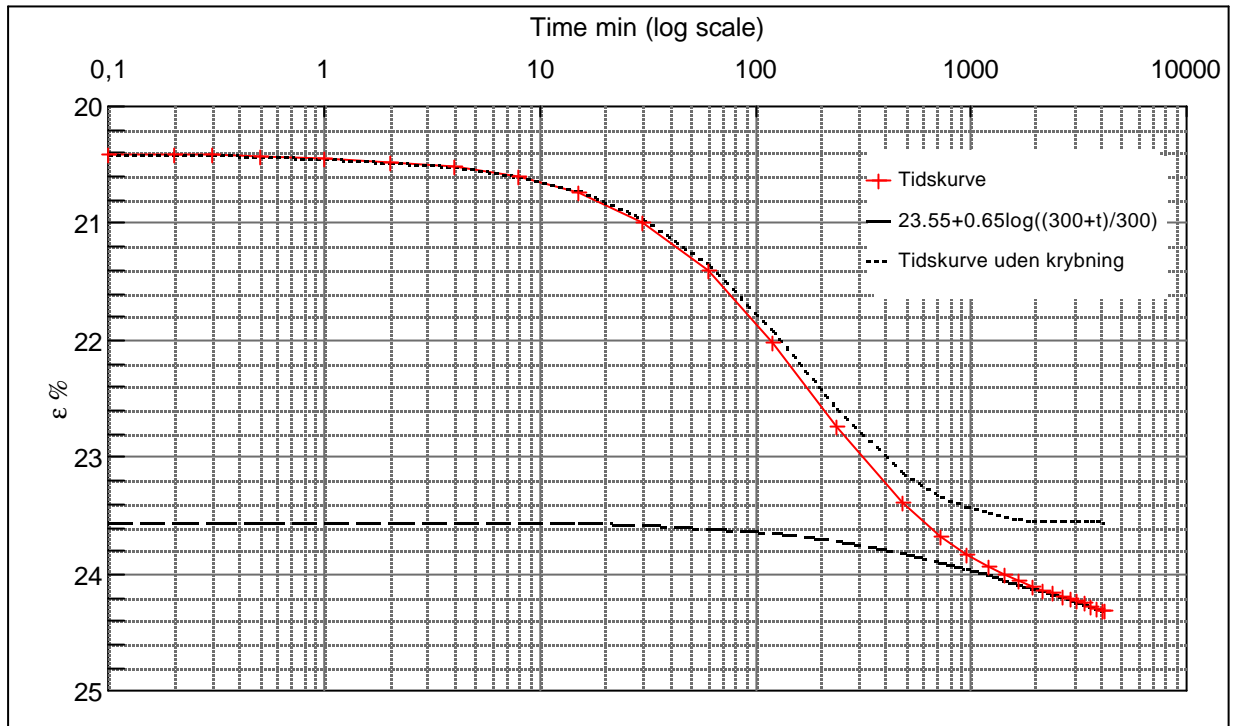
Step no 9	σ	kPa	ϵ	%	ϵ_i		tc in sec	29040
	Before	1.008,6	ϵ_0	17,61	ϵ_c %	19,48	K i kPa	18.587
	After	1.355,6	$\epsilon_{\sim\#}$	20,38	ϵ_s	0,7	k10 m/sec	1,8E-11
					ϵ_{kryb}	0,90	ck10 m ² /sec	3,34E-08



Material: Clay. marine, Lateglacial	
Bor no : 1	Depth: 13.5 m.b.s
Lab. no: K10	Insitu stress. 145 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 8.11
Approved:		Check:

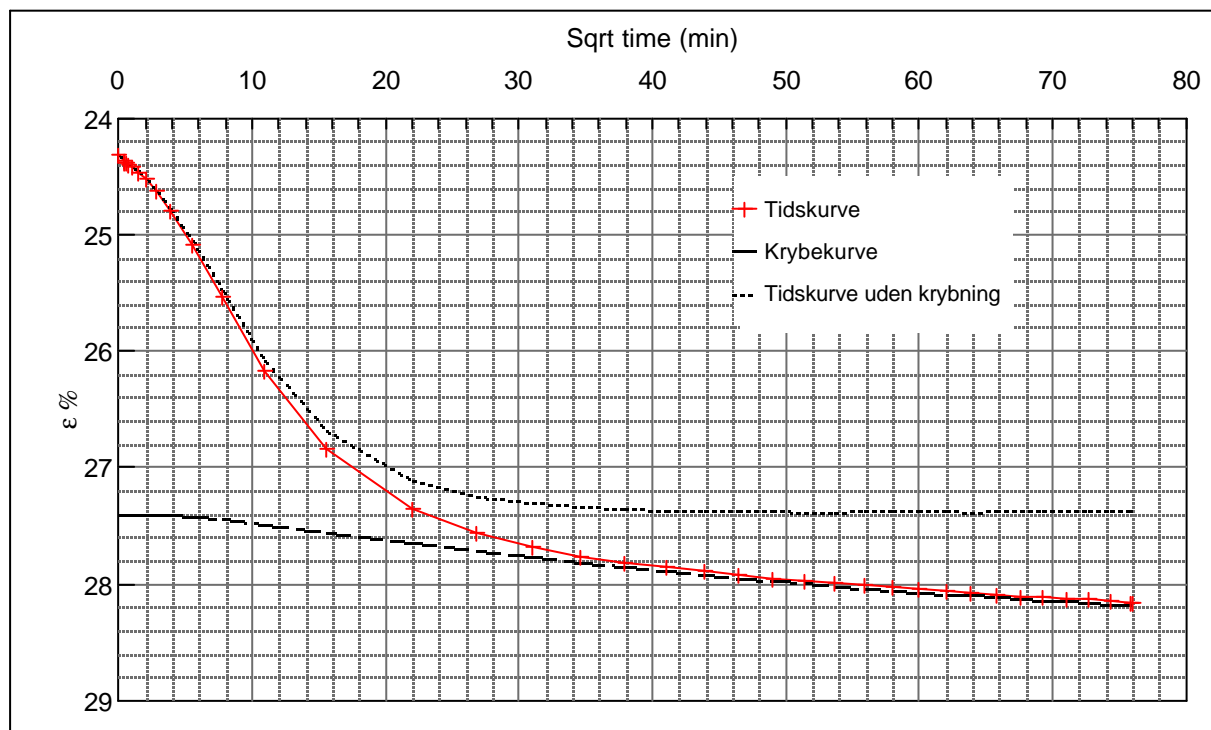
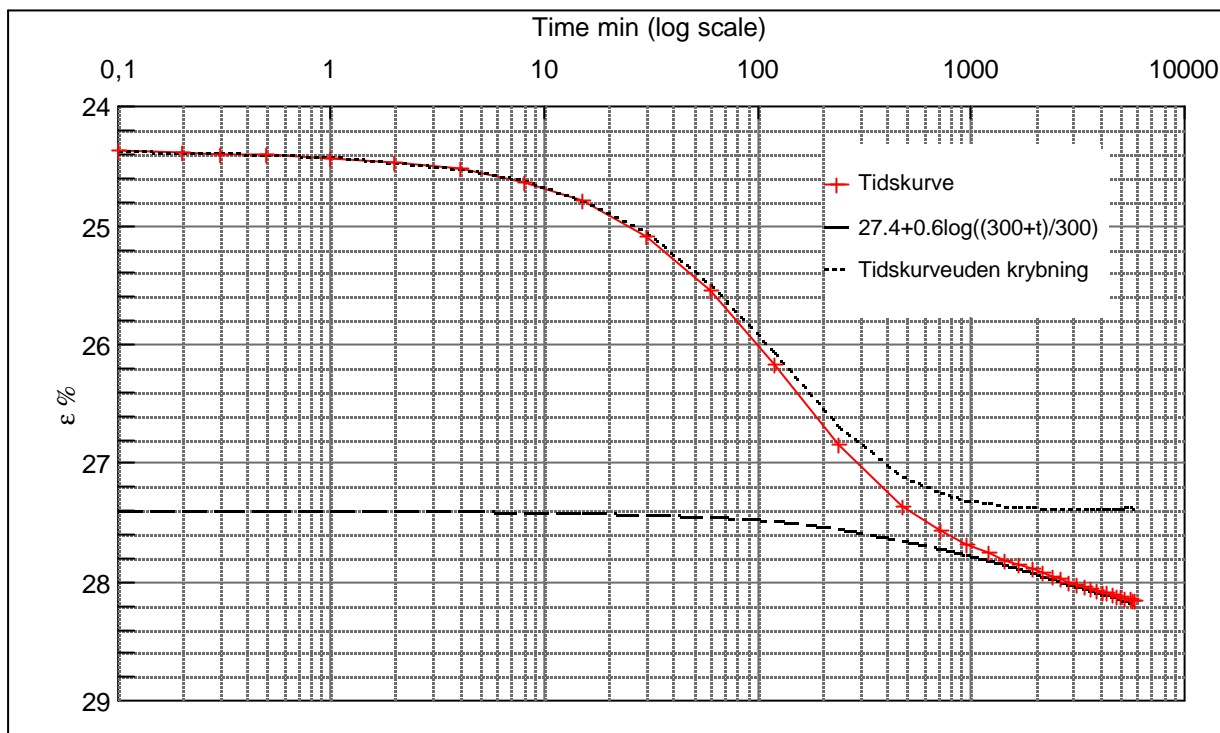
Step no 10	σ	kPa	ϵ	%	ϵ_i		tc in sec	24000
	Before	1.355,6	ϵ_0	20,38	ϵ_c %	23,55	K i kPa	21.856
	After	2.049,5	$\epsilon_{\sim\#}$	24,32	ϵ_s	0,65	k10 m/sec	1,8E-11
					ϵ_{kryb}	0,77	ck10 m ² /sec	4,04E-08



Material: Clay. marine, Lateglacial	
Bor no : 1	Depth: 13.5 m.b.s
Lab. no: K10	Insitu stress. 145 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 8.12
Approved:		Check:

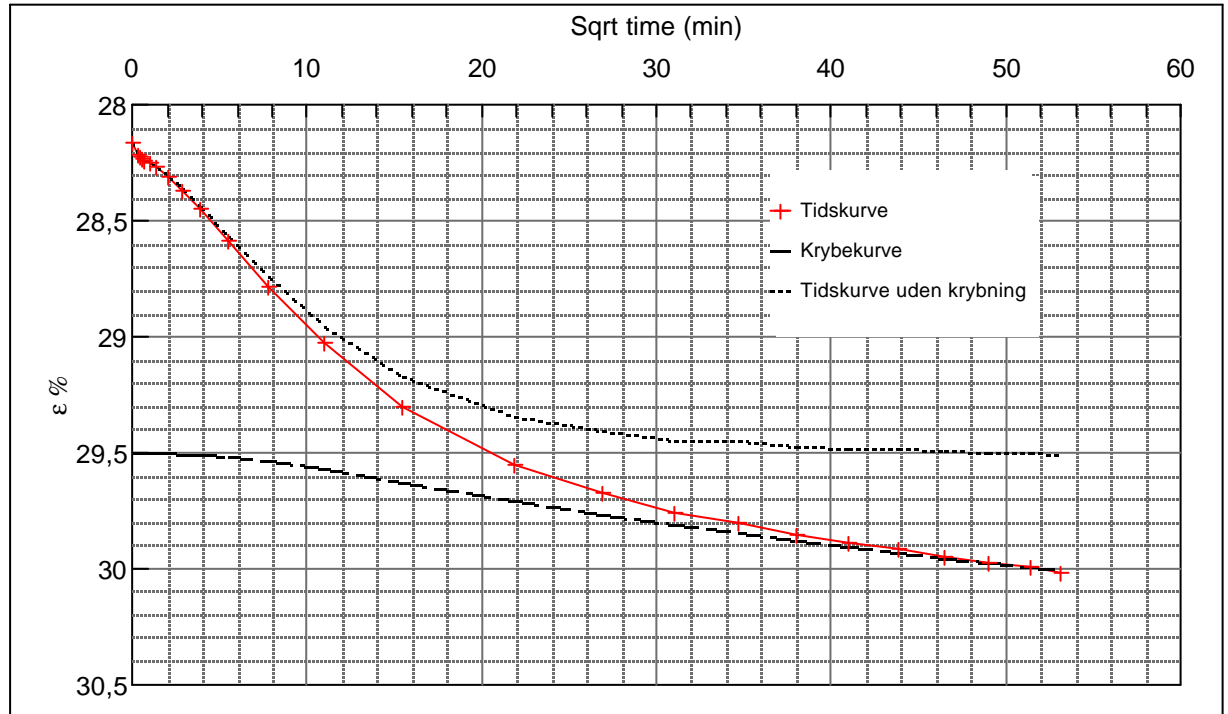
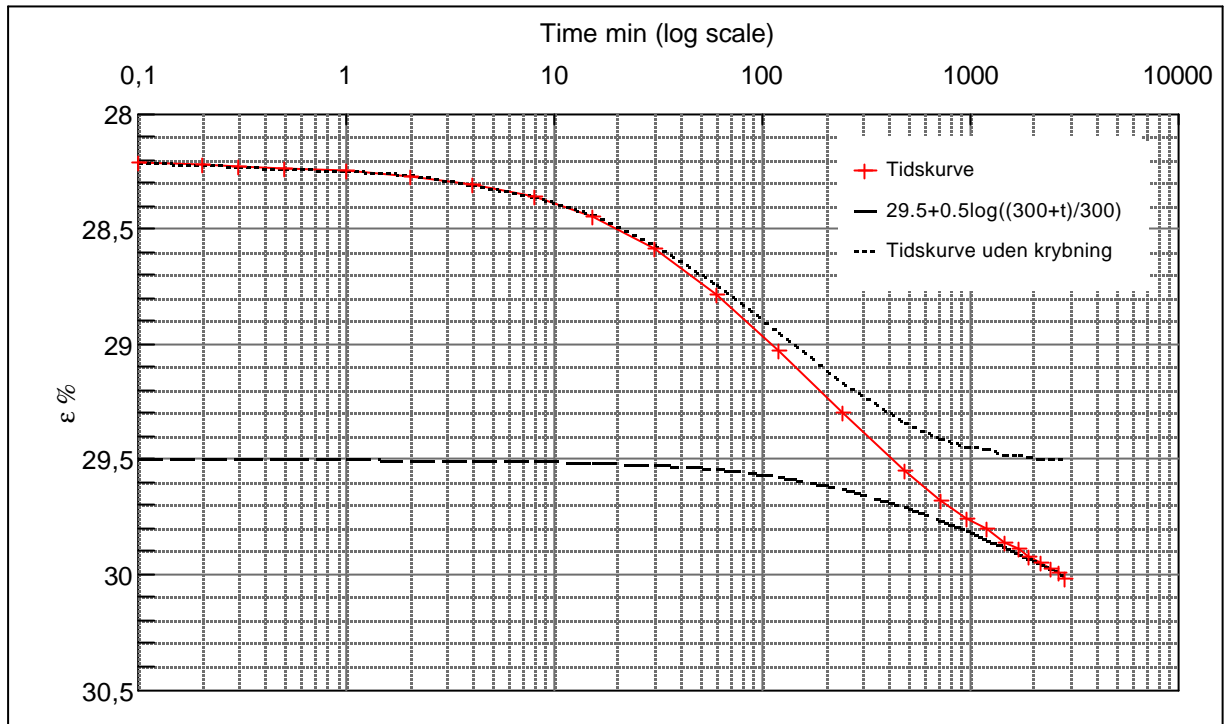
Step no 11	σ	kPa	ϵ	%	ϵ_i		tc in sec	18375
	Before	2.049,5	ϵ_0	24,32	ϵ_c %	27,4	K i kPa	33.740
	After	3.090,4	$\epsilon_{-#}$	28,16	ϵ_s	0,6	k10 m/sec	1,5E-11
					ϵ_{kryb}	0,76	ck10 m ² /sec	5,28E-08



Material: Clay. marine, Lateglacial		
Bor no :	1	Depth: 13.5 m.b.s
Lab. no:	K10	Insitu stress. 145 kPa

Job:		AAU
Nr. Lyngby		Encl. No 8.13
Executed:	AMS/gt	Check:
Approved:		

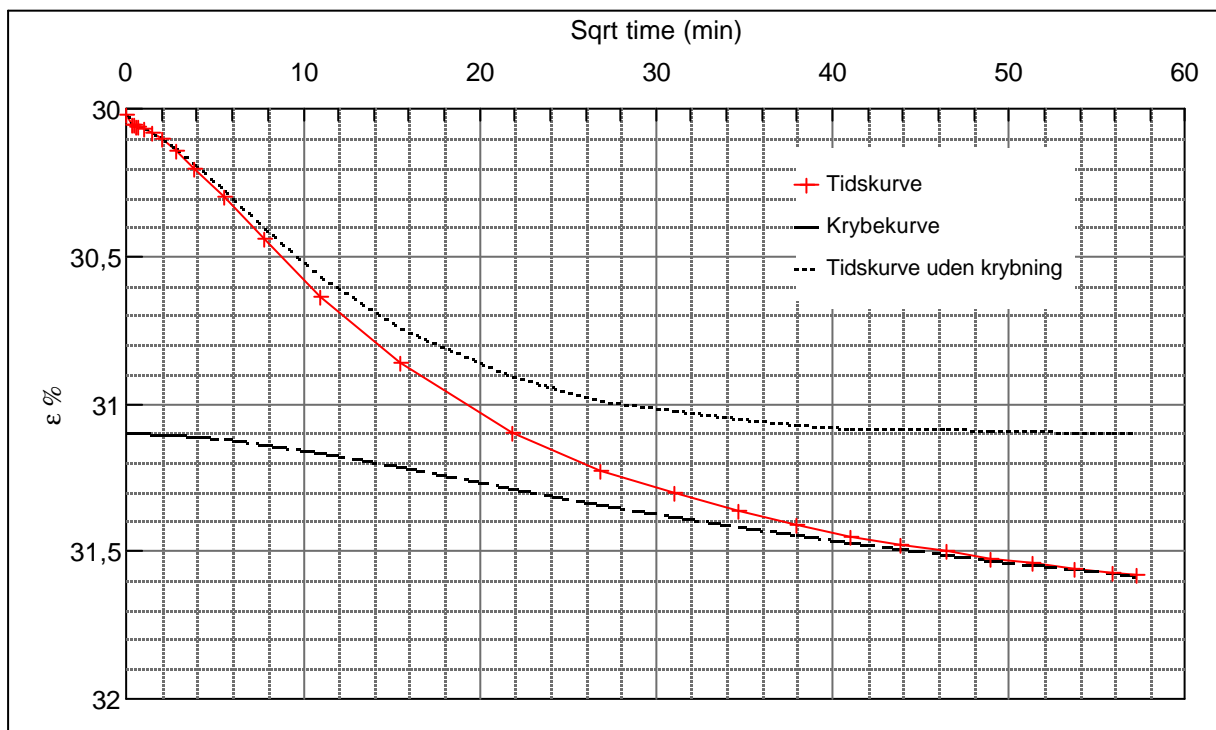
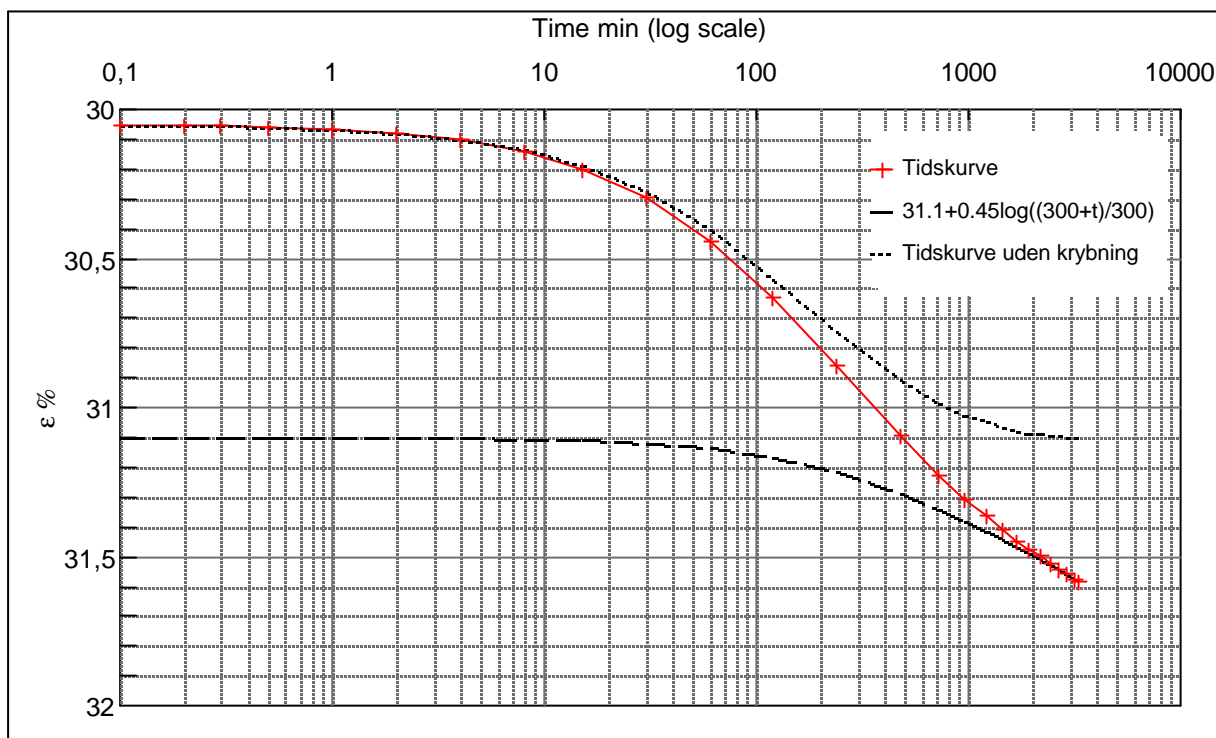
Step no 12	σ	kPa	ϵ	%	ϵ_i		tc in sec	15360
	Before	3.090,4	ϵ_0	28,16	ϵ_c %	29,5	K i kPa	77.581
	After	4.131,2	$\epsilon_{\sim\#}$	30,02	ϵ_s	0,5	k10 m/sec	8,0E-12
					ϵ_{kryb}	0,51	ck10 m^2 /sec	6,31E-08



Material: Clay. marine, Lateglacial	
Bor no : 1	Depth: 13.5 m.b.s
Lab. no: K10	Insitu stress. 145 kPa

Job: Nr. Lyngby	AAU
	Encl. No 8.14
Executed: AMS/gt	Check:
Approved:	

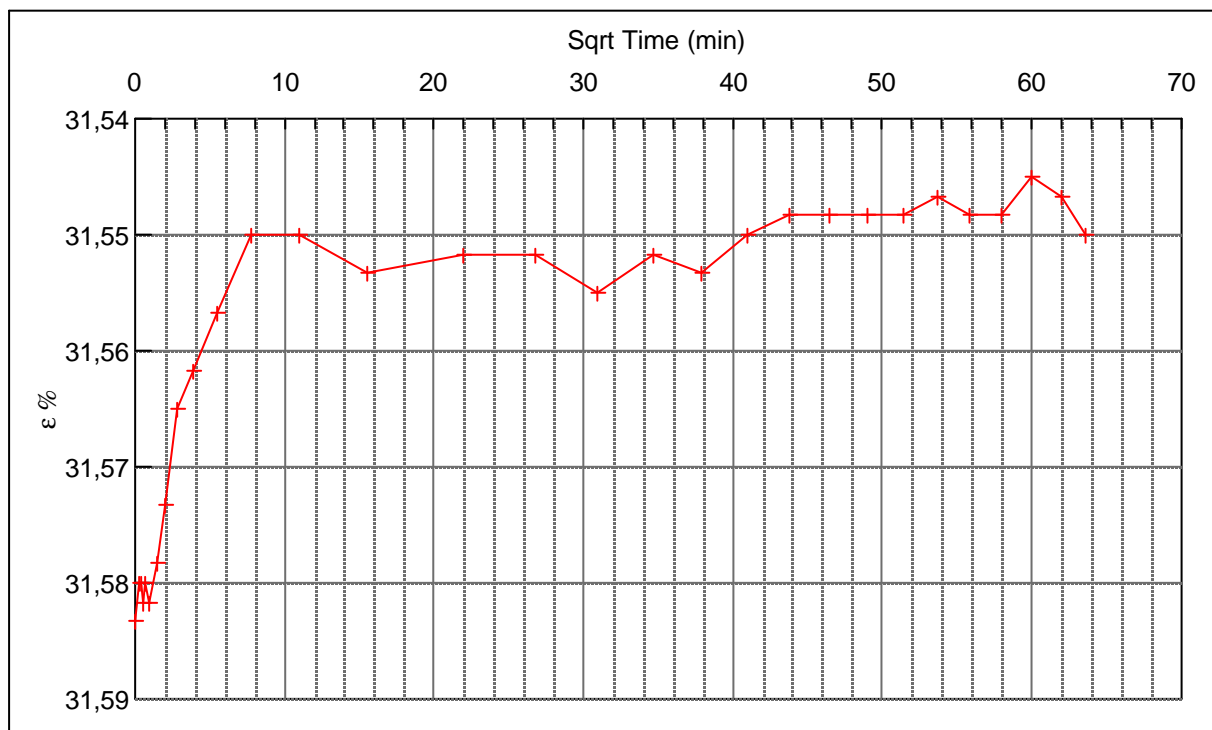
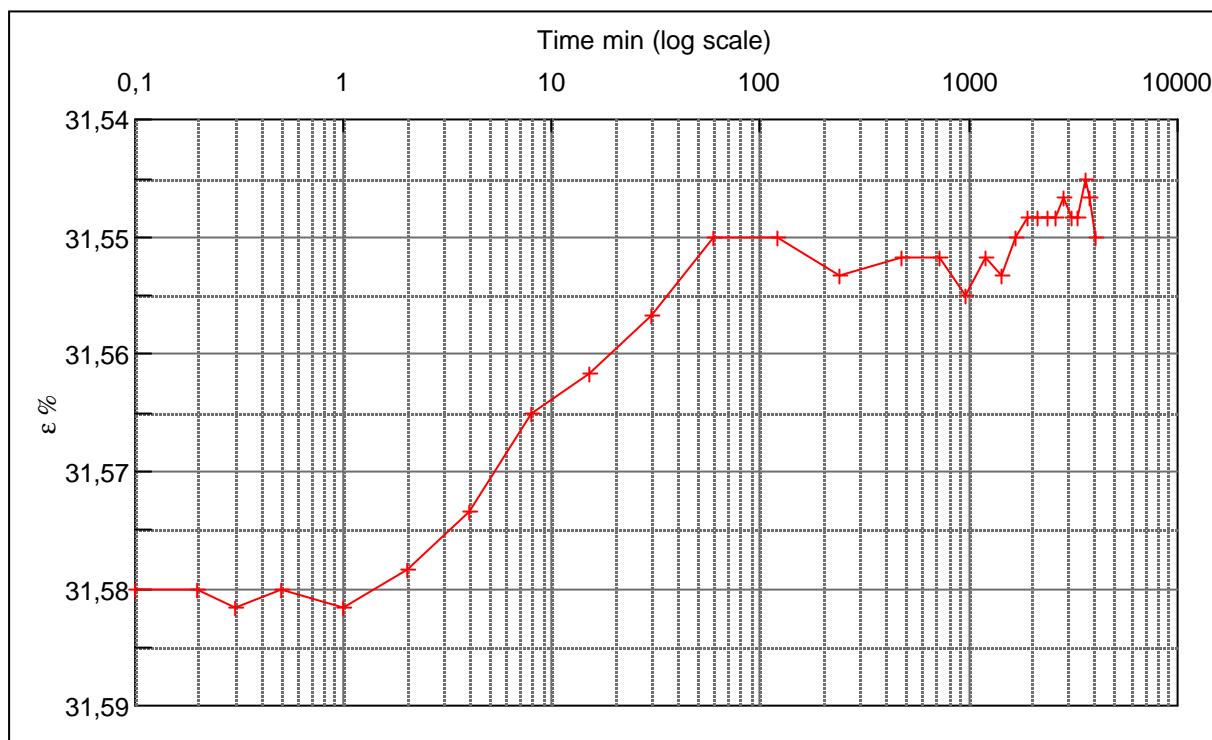
Step no 13	σ	kPa	ϵ	%	ϵ_i	tc in sec	20535
	Before	4.131,2	ϵ_0	30,02	ϵ_c %	K i kPa	96.081
	After	5.172,1	$\epsilon_{-#}$	31,58	ϵ_s	k10 m/sec	4,8E-12
					ϵ_{kryb}	ck10 m ² /sec	4,72E-08



Material: Clay. marine, Lateglacial		
Bor no :	1	Depth: 13.5 m.b.s
Lab. no:	K10	Insitu stress. 145 kPa

Job: Nr. Lyngby		AAU
		Encl. No 8.15
Executed:	AMS/gt	Check:
Approved:		

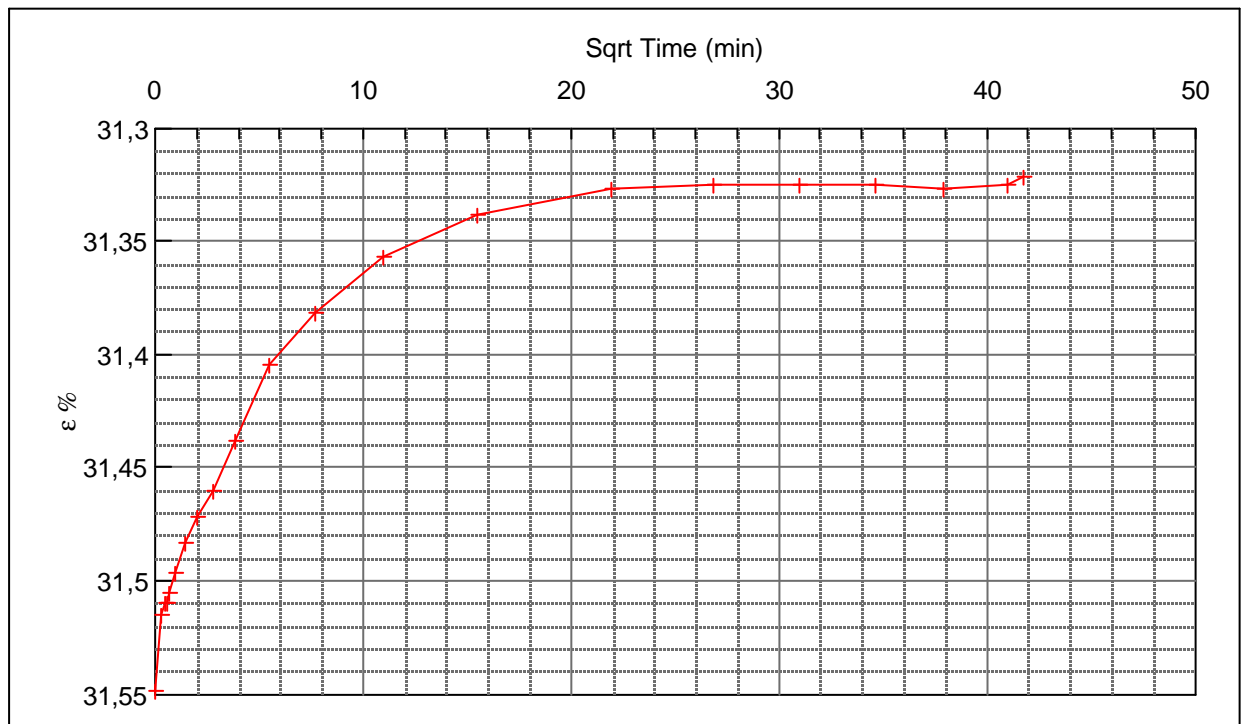
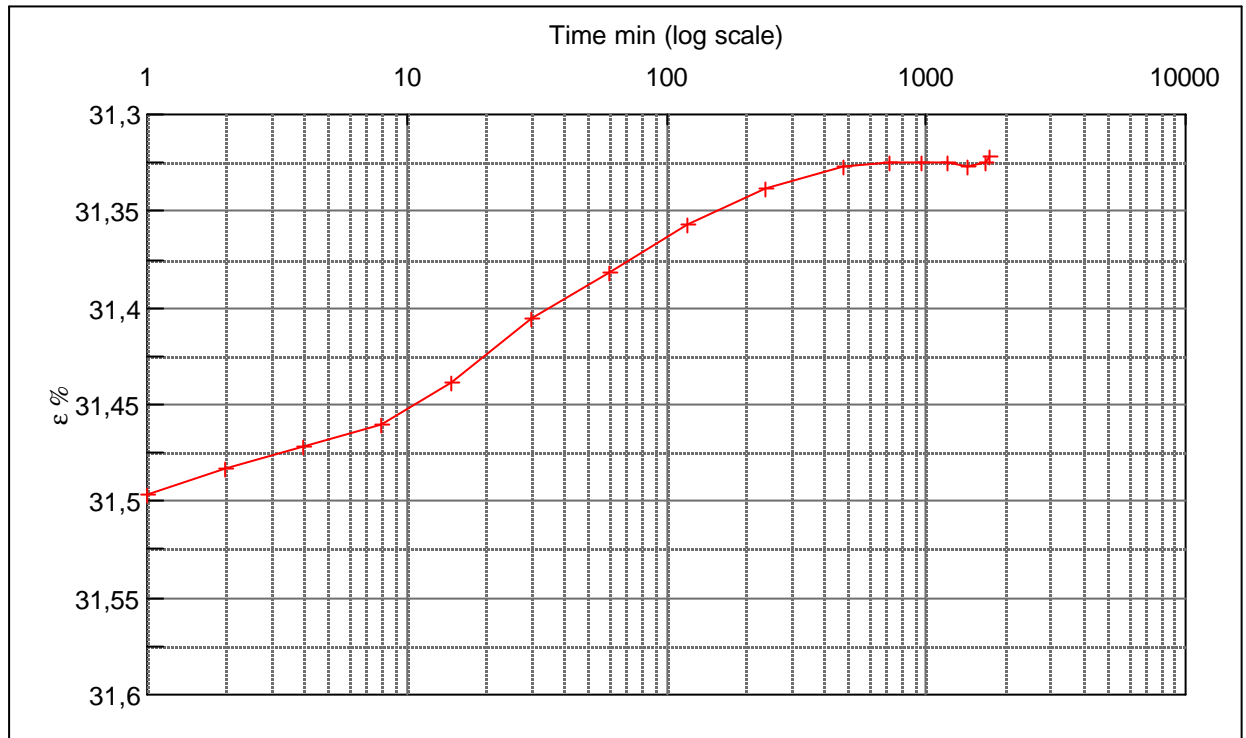
Step no 14	σ	kPa	ϵ	%	ϵ_i	tc in sec	2160
	Before	5.172,1	ϵ_0	31,58	ϵ_c %	K i kPa	3.122.620
	After	4.131,2	$\epsilon_{-#}$	31,55	ϵ_s	k10 m/sec	1,4E-12
					ϵ_{kryb}	ck10 m ² /sec	4,49E-07



Material: Clay. marine, Lateglacial			
Bor no :	1	Depth:	13.5 m.b.s
Lab. no:	K10	Insitu stress.	145 kPa

Job:		AAU
Nr. Lyngby		Encl. No 8.16
Executed:	AMS/gt	Check:
Approved:		

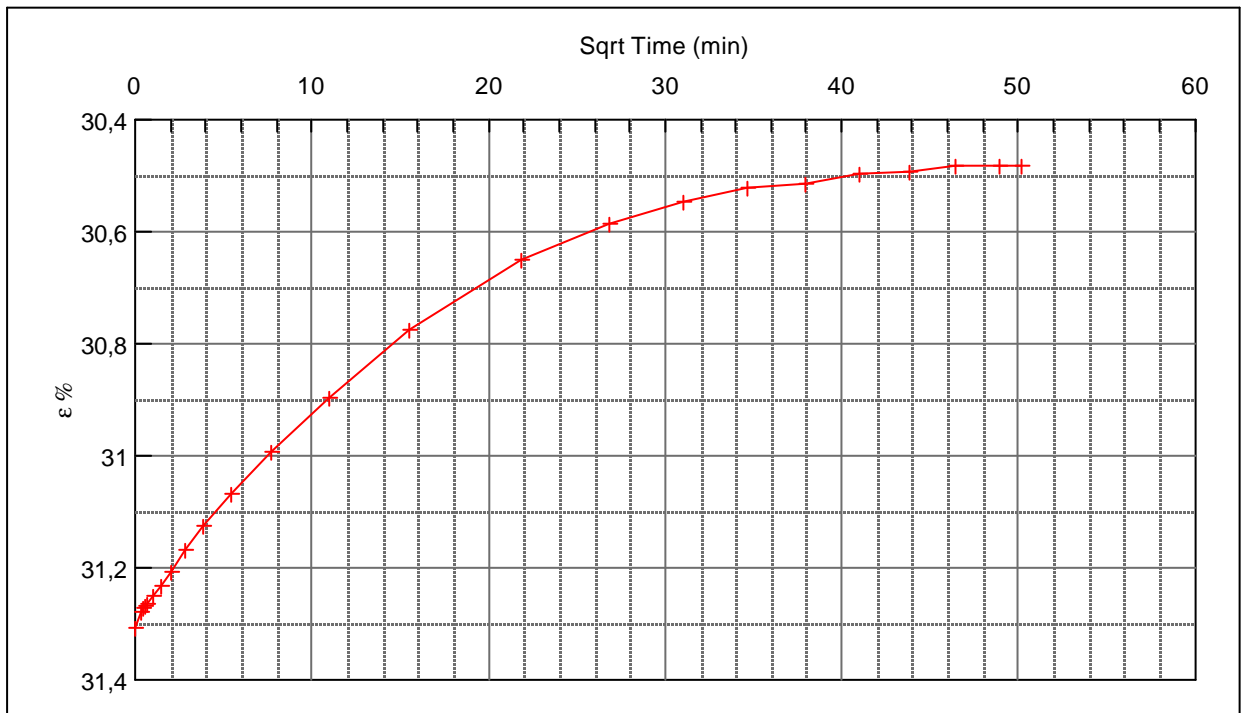
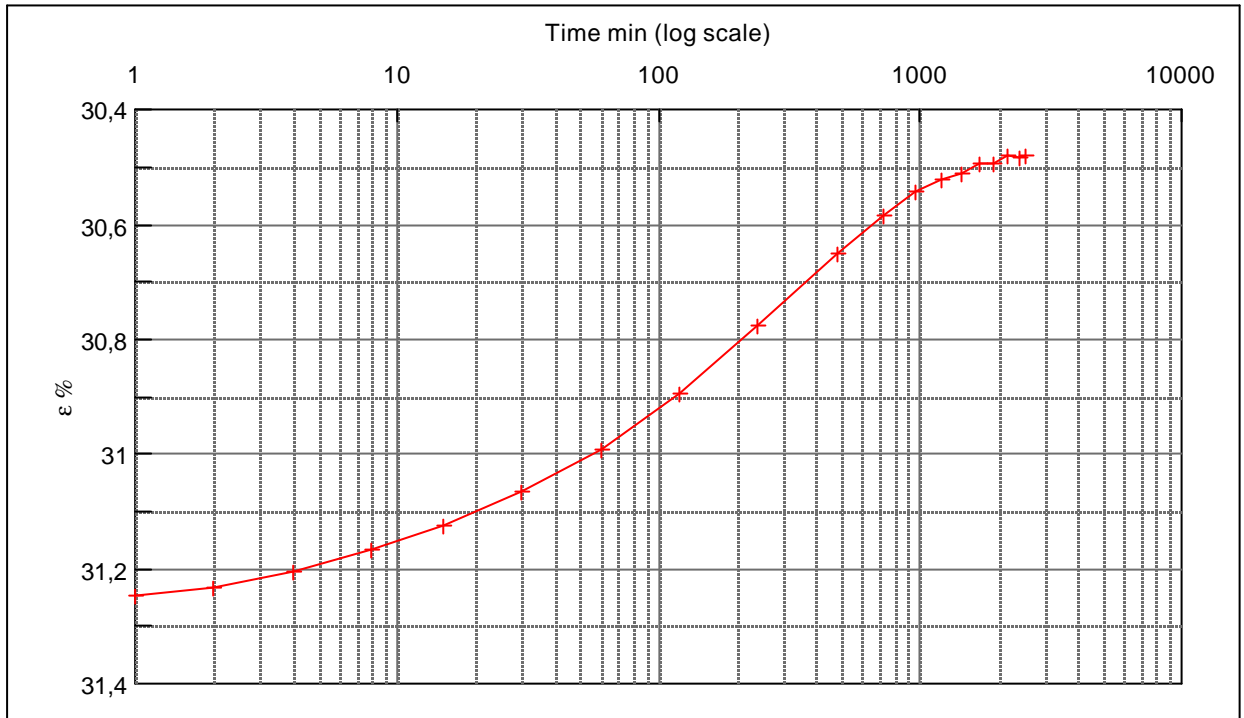
Step no 15	σ	kPa	ε	%	ε_i	31,32	tc in sec	6000
	Before	4.131,2	ε_0	31,55	ε_c %		K i kPa	919.770
	After	2.049,5	$\varepsilon_{\sim\#}$	31,32	ε_s		k10 m/sec	1,7E-12
					ε_{kryb}		ck10 m^2 /sec	1,62E-07



Material: Clay. marine, Lateglacial	
Bor no : 1	Depth: 13.5 m.b.s
Lab. no: K10	Insitu stress. 145 kPa

Job: Nr. Lyngby	AAU
	Encl. No 8.17
Executed: AMS/gt	Check:
Approved:	

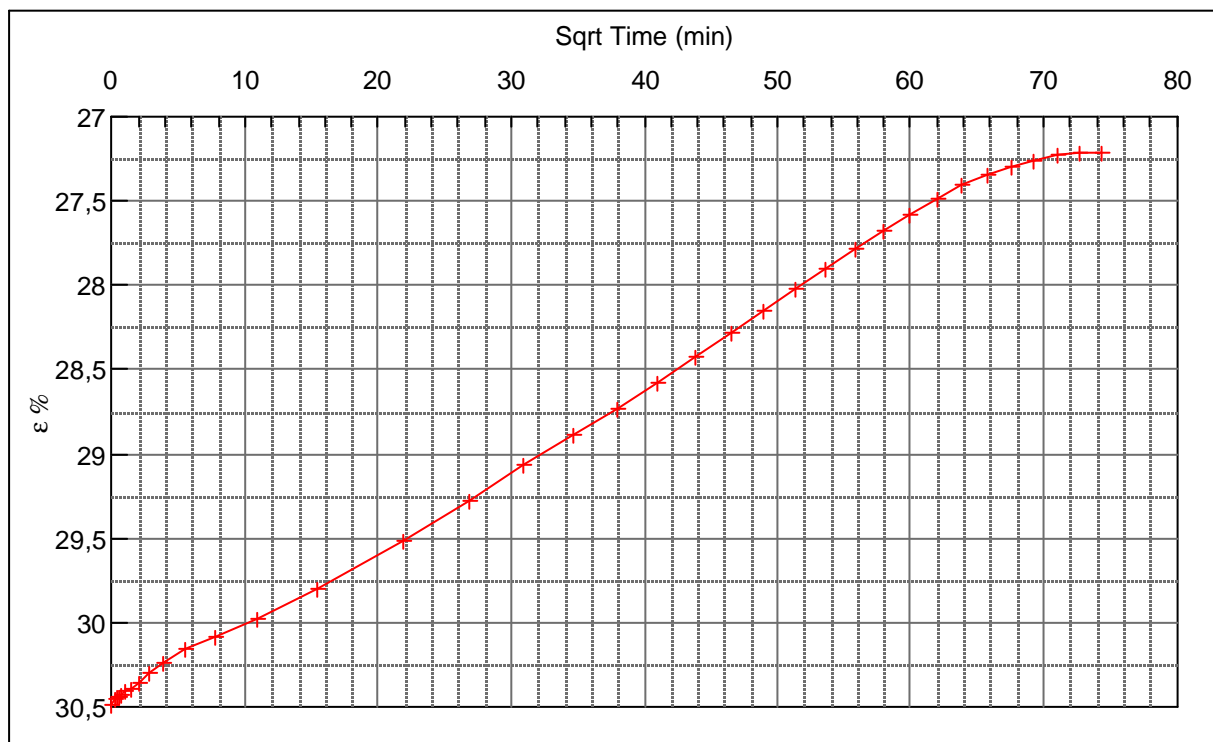
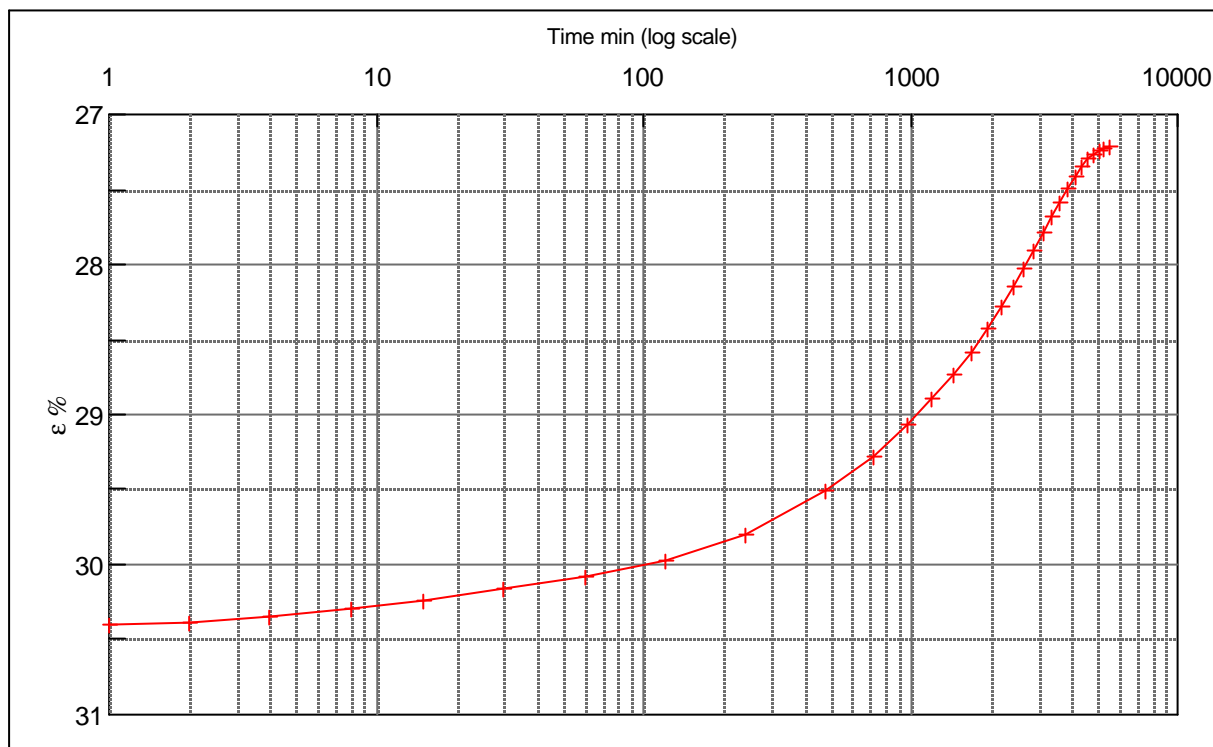
Step no 16	σ	kPa	ϵ	%	ϵ_i		tc in sec	21660
	Before	2.049,5	ϵ_0	31,31	ϵ_c %	30,48	K i kPa	167.883
	After	661,6	$\epsilon_{\sim\#}$	30,48	ϵ_s		k10 m/sec	2,6E-12
					ϵ_{kyb}		ck10 m ² /sec	4,48E-08



Material: Clay. marine, Lateglacial			
Bor no :	1	Depth:	13.5 m.b.s
Lab. no:	K10	Insitu stress.	145 kPa

Job: Nr. Lyngby		AAU	
Executed:		AMS/gt	
Approved:		Encl. No 8.18	
		Check:	

Step no 17	σ	kPa	ε	%	ε_i	tc in sec	269340
	Before	661,6	ε_0	30,48	ε_c %	K i kPa	20.149
	After	2,4	$\varepsilon_{-#}$	27,21	ε_s	k10 m/sec	1,8E-12
					ε_{kyb}	ck10 m^2/sec	3,60E-09

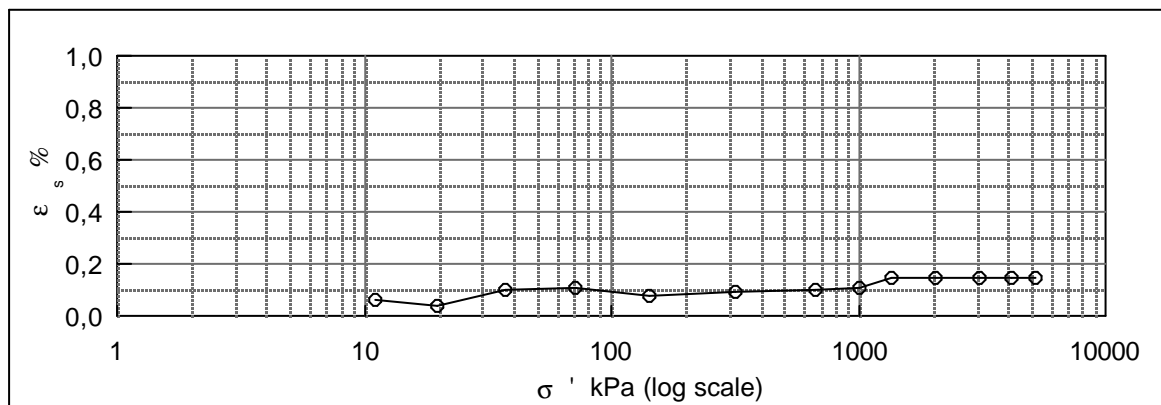
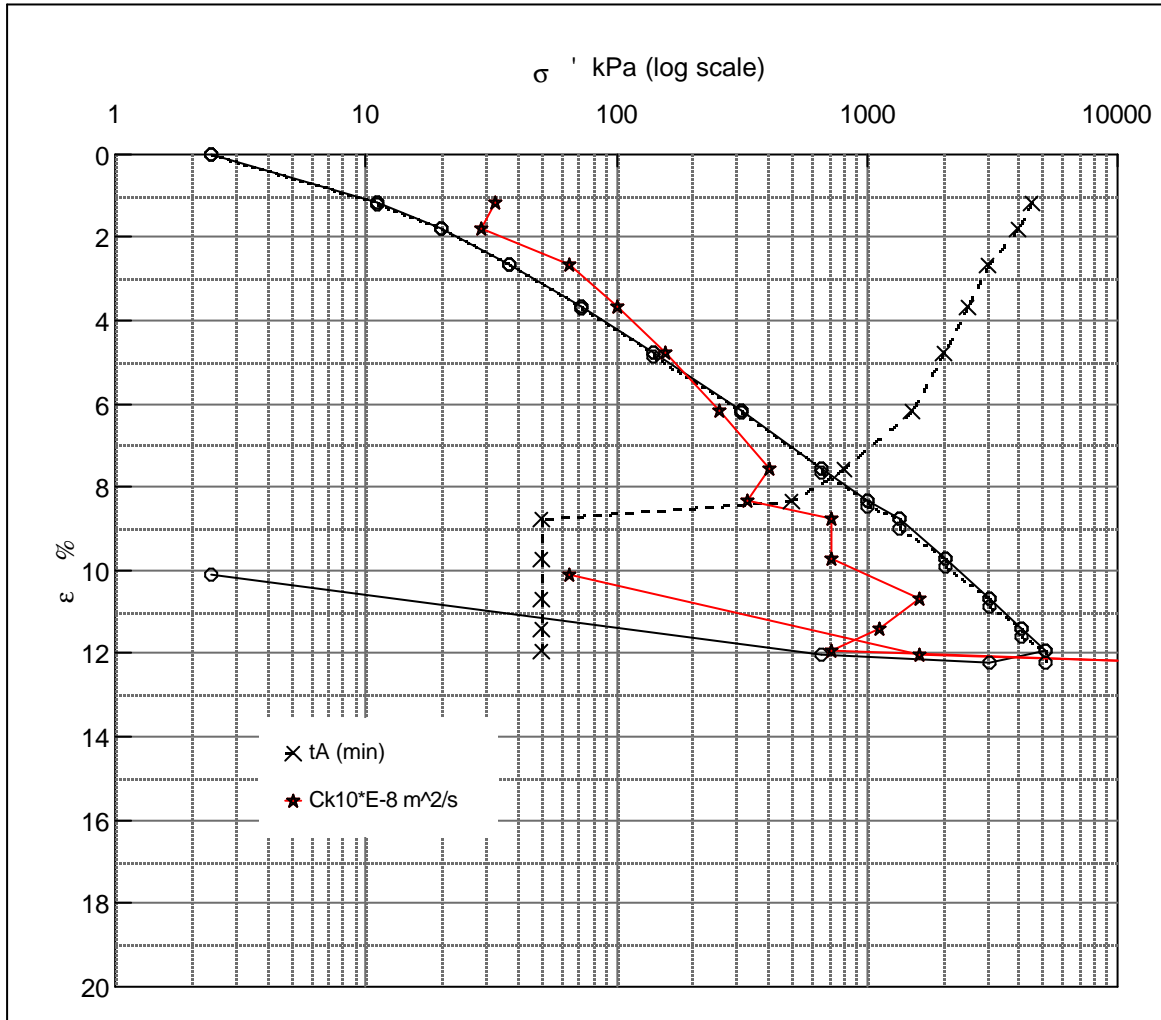


Material: Clay. marine, Lateglacial			
Bor no :	1	Depth:	13.5 m.b.s
Lab. no:	K10	Insitu stress.	145 kPa

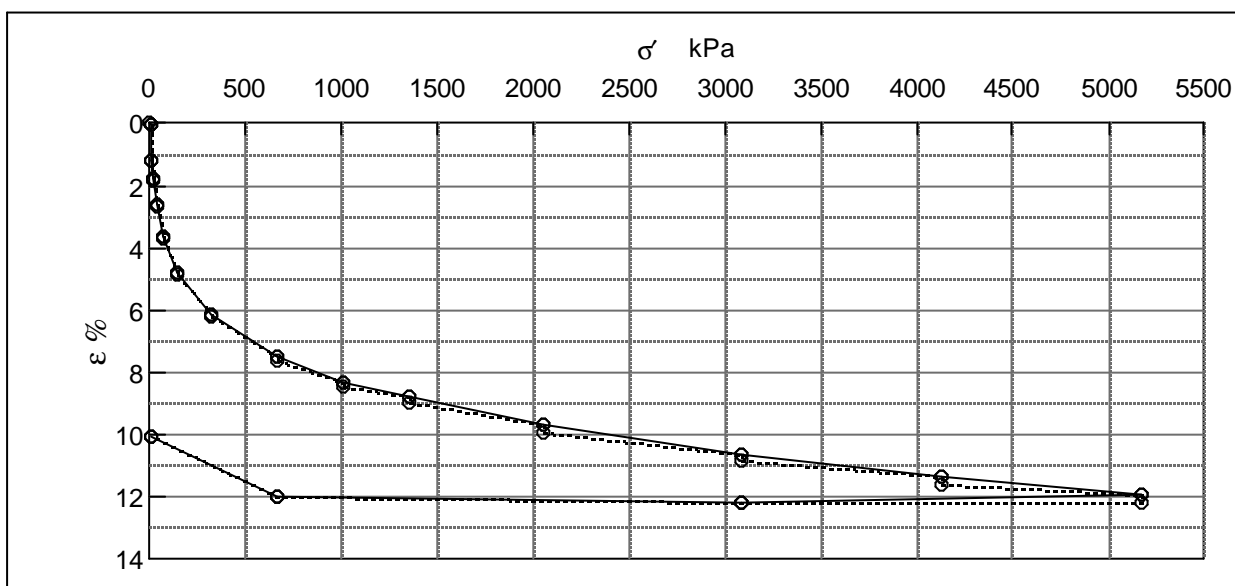
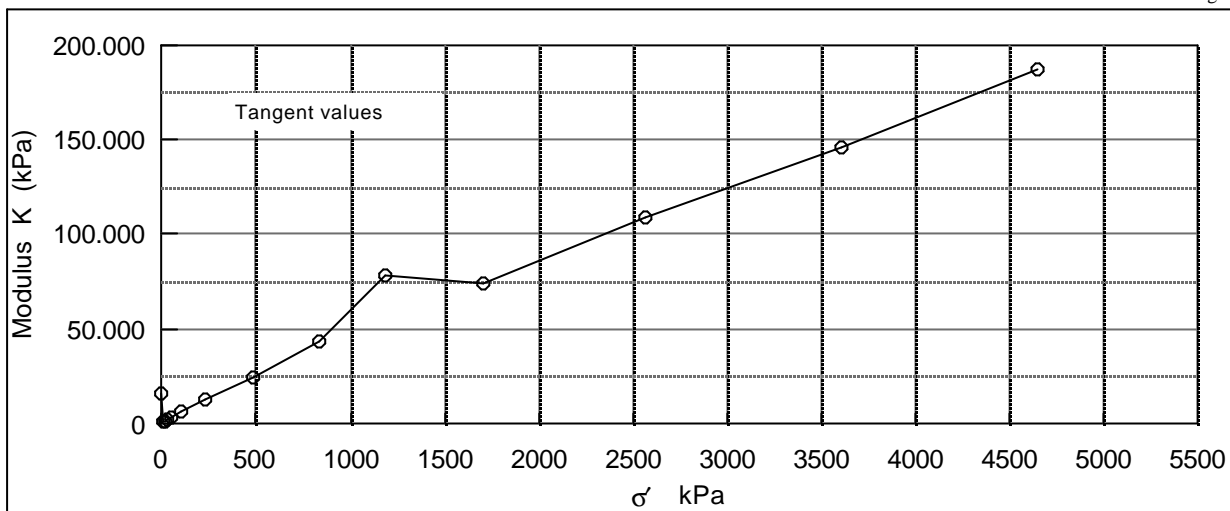
Job: Nr. Lyngby		AAU
		Encl. No 8.19
Executed:	AMS/gt	Check:
Approved:		

28.10.05/gt

Description of soil: Clay, marine, Lateglacial			Water content %	Before	After
			Bulk density Mg/m ³	23,9	17,8
			Grain density Mg/m ³	1,99	2,15
			Void ratio	2,7	0,68
Bor no : 2	Overburden pressure σ'_o	~20 kPa	Degr. of Saturation %	0,68	0,48
Lab. no: K2	Vane strength c_v	70 kPa	Dimension H x D mm	95	100
Level : 1 m.b.s	CPT - value q_c	MPa		30x60	26.5x60



Job: Nr. Lyngby		AAU
		Encl. No 9.1
Executed:	AMS/gt	Check:
Approved:		



Test results

Q ~ 5 %
 Qs 0,15 %
 σ_{pc} ?

σ' kPa	ϵ_c %	ϵ_s % / lct	Ck10 m ² /s	σ'_m kPa	K kPa	w %
0,0	0,00					
2,4	0,02			1,2	16191,4	24,0
11,1	1,18	0,06	3,3E-07	6,8	744,5	23,3
19,8	1,80	0,04	2,9E-07	15,4	1399,0	22,9
37,1	2,64	0,10	6,5E-07	28,5	2065,2	22,4
71,8	3,66	0,11	1,0E-06	54,5	3401,5	21,7
141,2	4,77	0,08	1,6E-06	106,5	6251,5	21,0
314,7	6,14	0,09	2,6E-06	228,0	12709,1	20,2
661,6	7,53	0,10	4,0E-06	488,2	24871,5	19,3
1.008,6	8,32	0,11	3,3E-06	835,1	43918,7	18,8
1.355,6	8,77	0,15	7,2E-06	1.182,1	77968,0	18,6
2.049,5	9,70	0,15	7,2E-06	1.702,5	74215,6	18,0
3.090,4	10,66	0,15	1,6E-05	2.569,9	108424,3	17,4
4.131,2	11,38	0,15	0,000011	3.610,8	145576,7	16,9
5.172,1	11,93	0,15	7,2E-06	4.651,7	187544,7	16,6
3.090,4	12,20		1,8E-04	4.131,2	-765348,0	16,4
661,6	12,04		1,6E-05	1.876,0	1471942,1	16,5
2,4	10,08		6,5E-07	332,0	33736,9	17,7

Remark:
 Kerneprøve, siltholdigt ler, sandsynligvis forstyrret

Job:

Nr. Lyngby

AAU

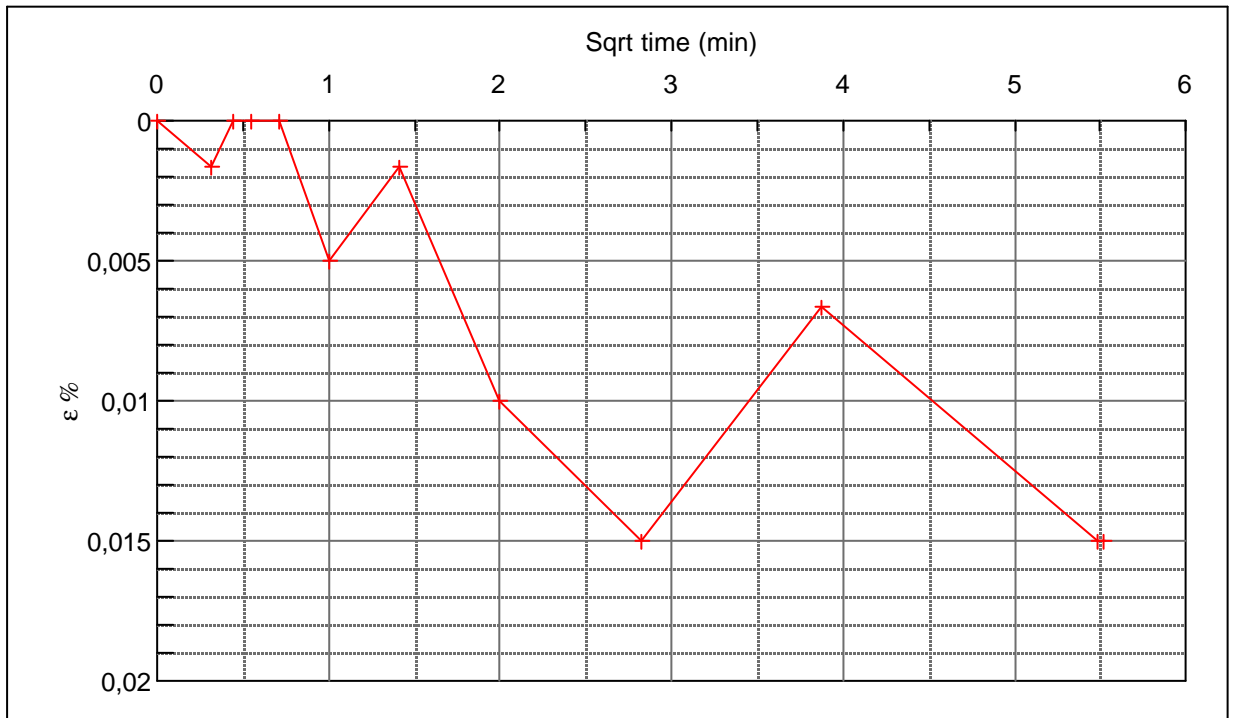
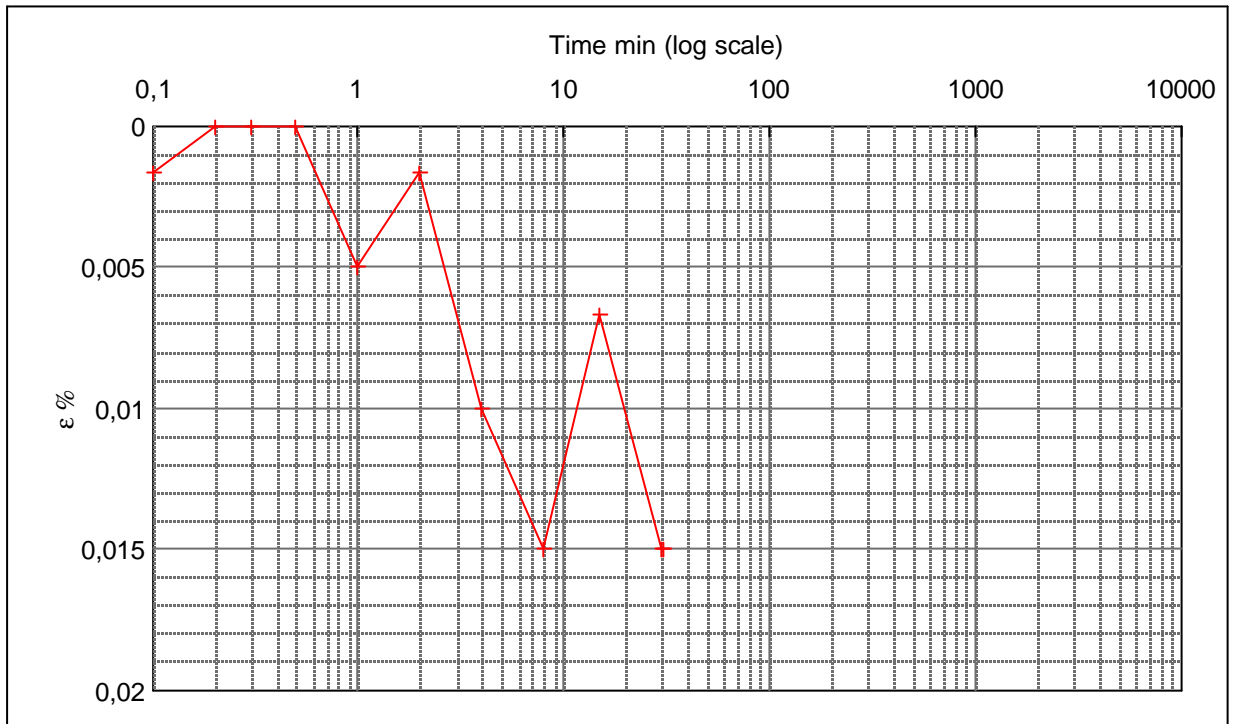
Encl. No
9.2

Executed: AMS/gt

Check:

Approved:

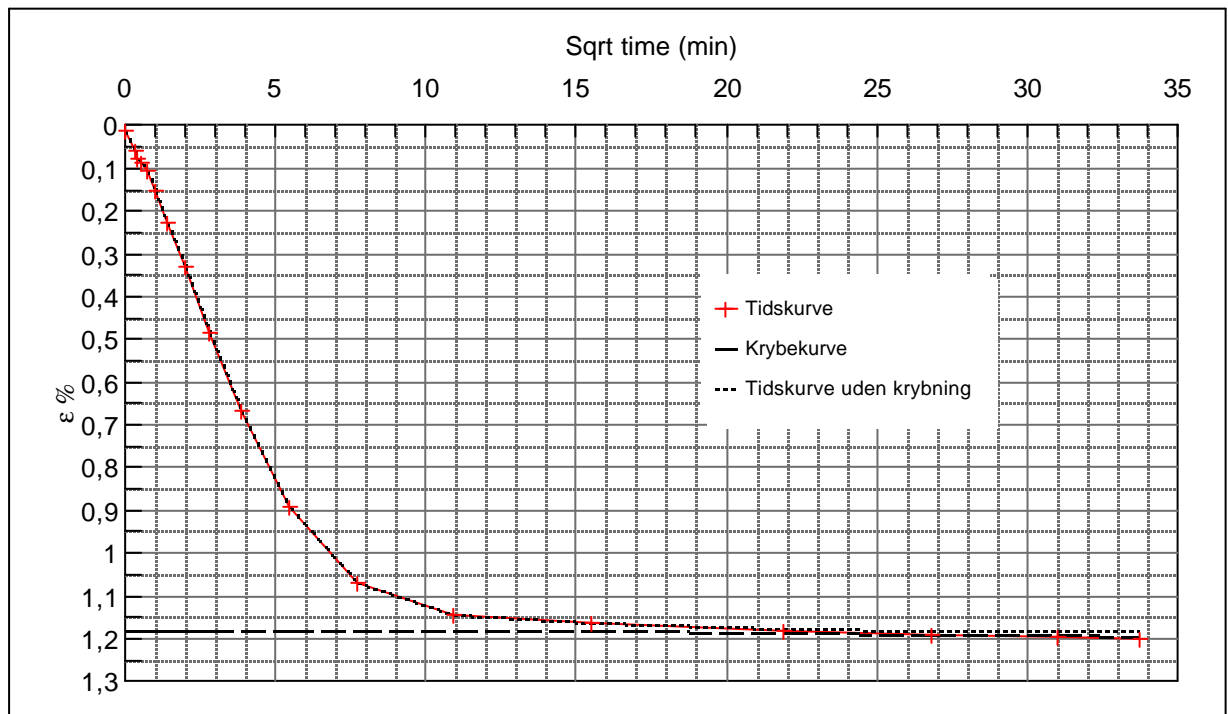
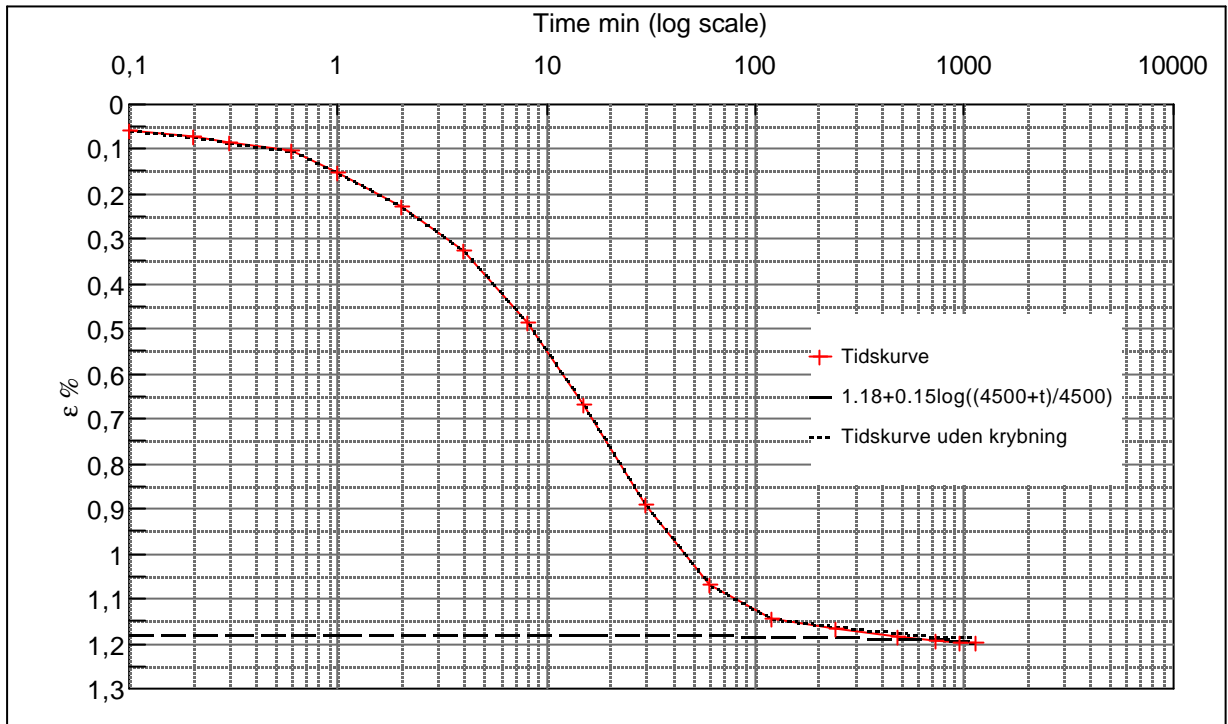
Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	
	Before	0,00	ϵ_0	0,000	ϵ_c %	0,015	K i kPa	16.191
	After	2,43	$\epsilon_{\sim\#}$	0,015	ϵ_s		k10 m/sec	
					ϵ_{kyb}		ck10 m ² /sec	



Material: Clay, marine, Lateglacial	
Bor no : 2	Depth: 1 m.b.s
Lab. no: K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby	AAU
	Encl. No 9.3
Executed: AMS/gt	Check:
Approved:	

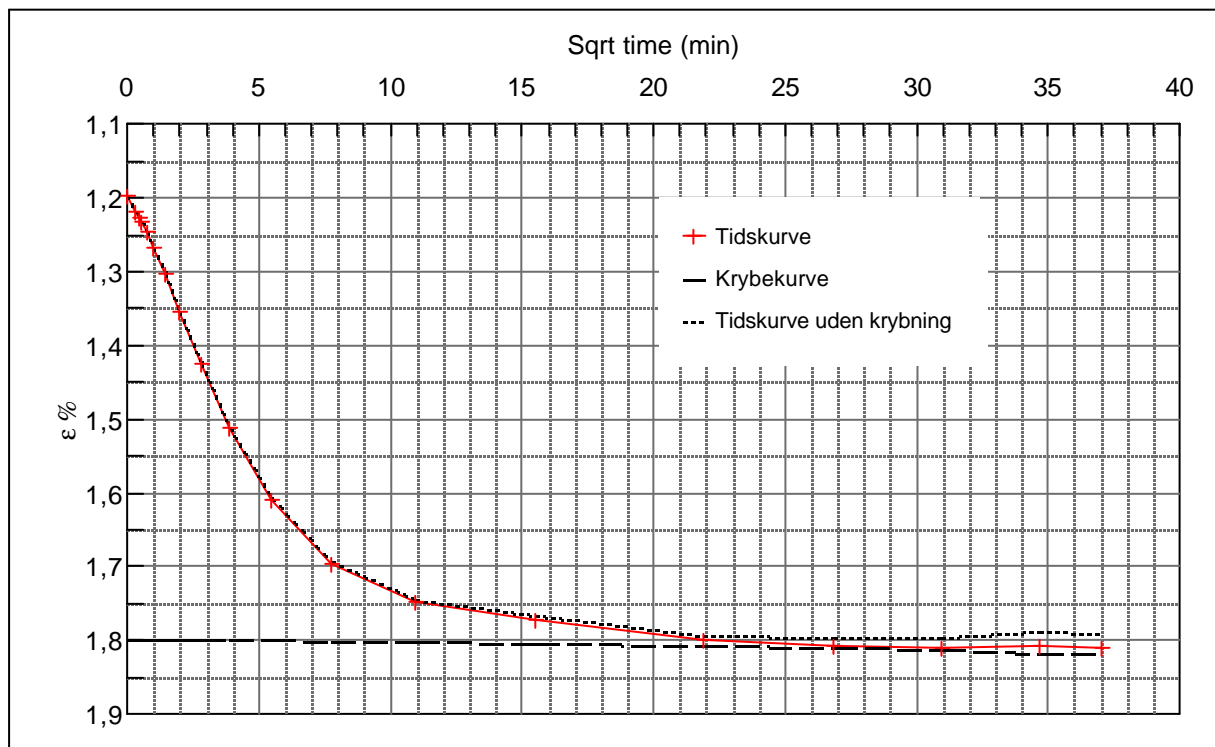
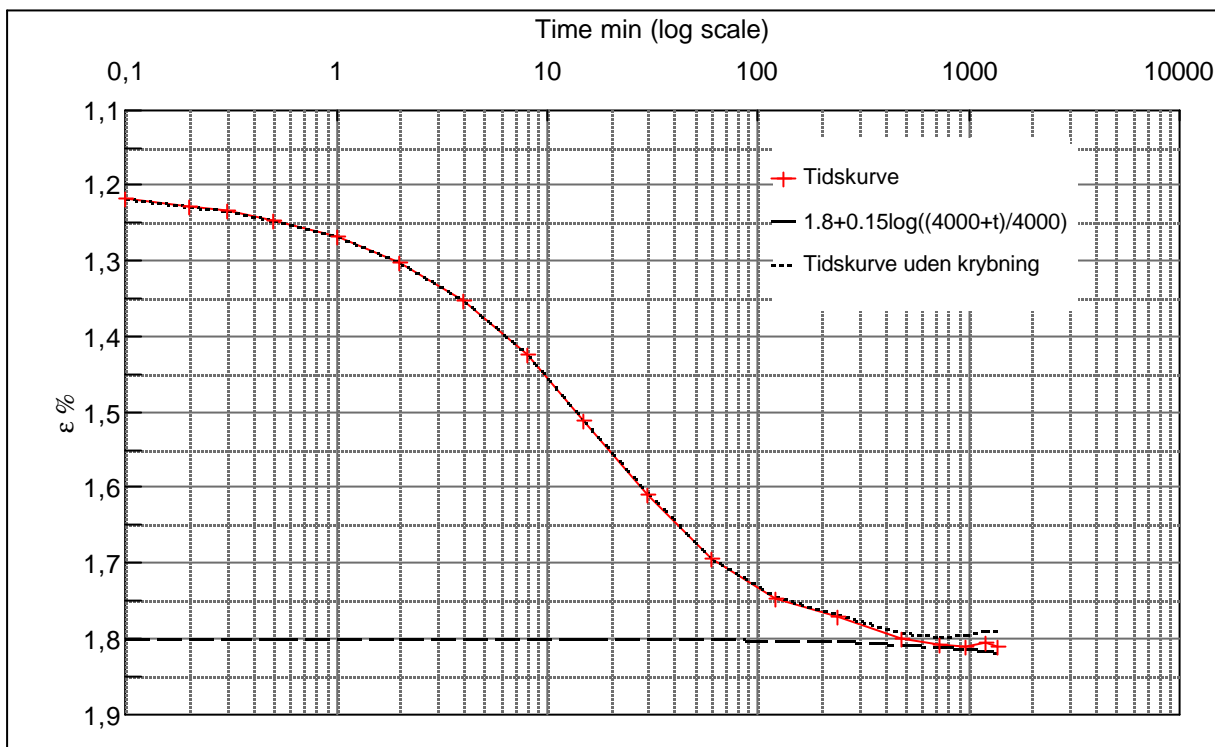
Step no 2	σ	kPa	ϵ	%	ϵ_i		tc in sec	2940
	Before	2,4	ϵ_0	0,01	ϵ_c %	1,18	K i kPa	743
	After	11,1	$\epsilon_{\sim\#}$	1,20	ϵ_s	0,06	k10 m/sec	4,4E-09
					ϵ_{kryb}	0,02	ck10 m ² /sec	3,30E-07



Material: Clay, marine, Lateglacial	
Bor no : 2	Depth: 1 m.b.s
Lab. no: K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby	AAU
	Encl. No 9.4
Executed: AMS/gt	Check:
Approved:	

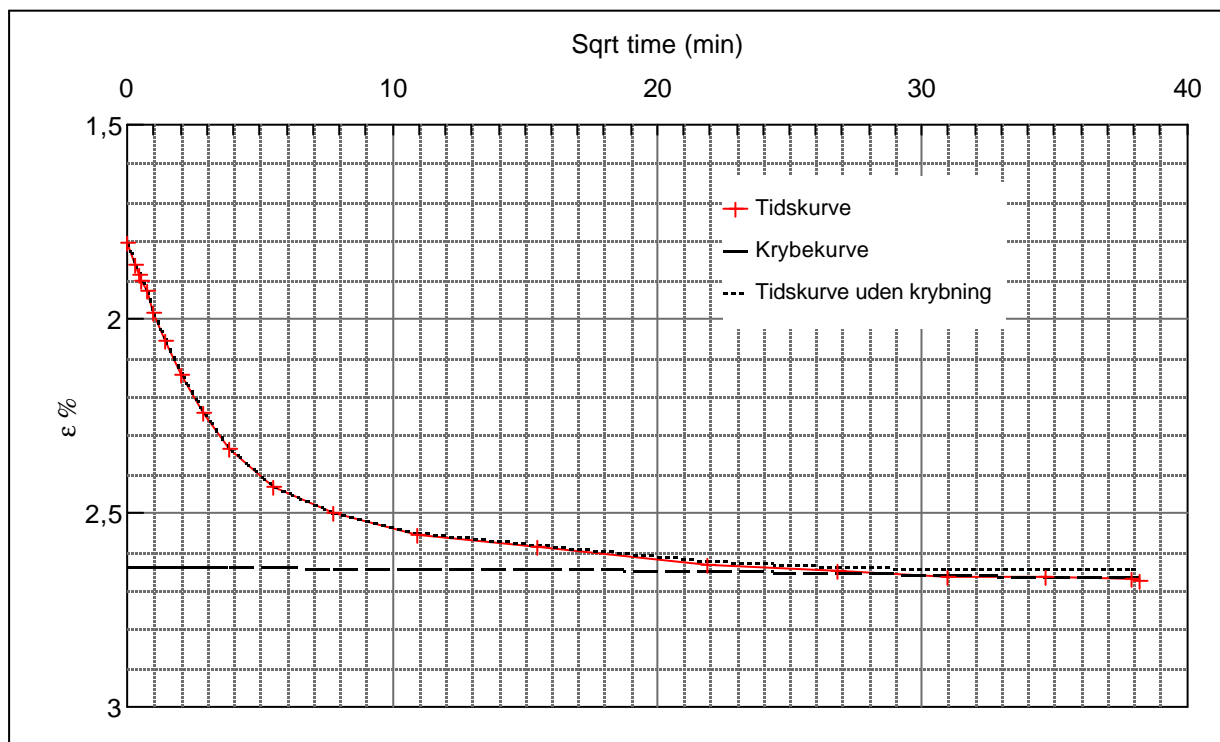
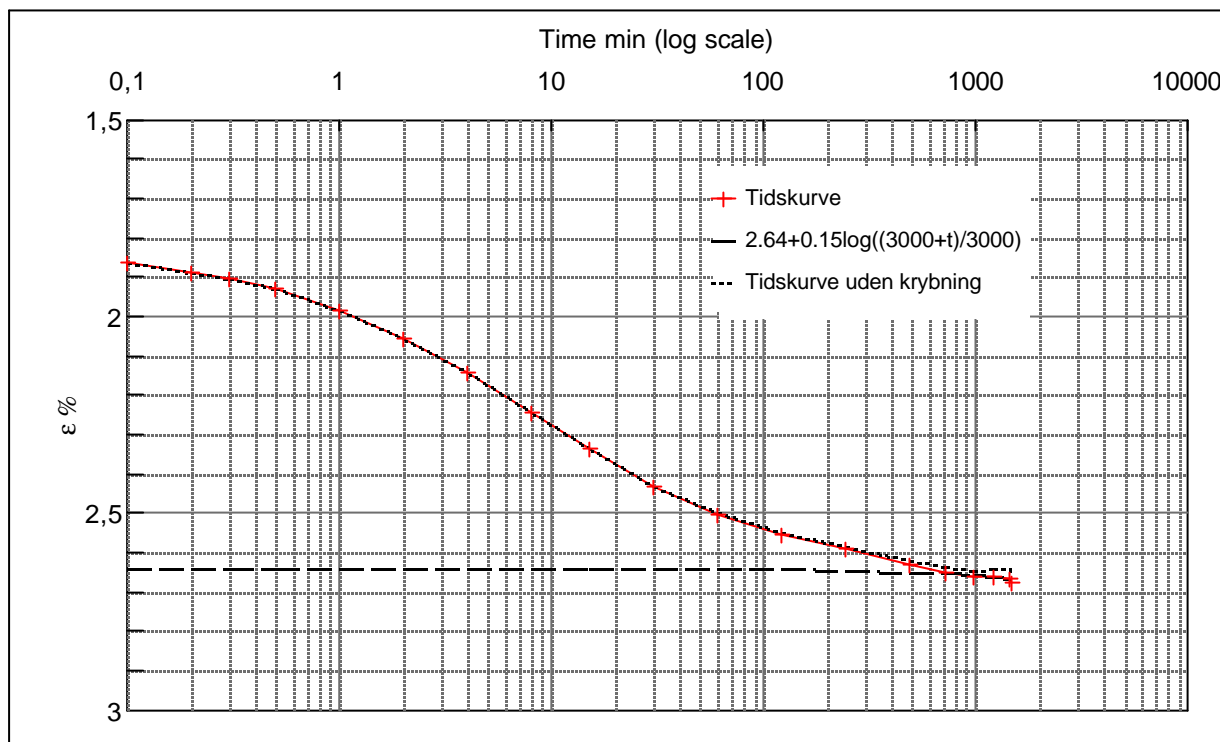
Step no 3	σ	kPa	ϵ	%	ϵ_i	tc in sec	3375
	Before	11,1	ϵ_0	1,20	ϵ_c %	K i kPa	1.438
	After	19,8	$\epsilon_{\sim\#}$	1,81	ϵ_s	k10 m/sec	2,0E-09
					ϵ_{kryb}	0,01	ck10 m^2/sec 2,87E-07



Material: Clay, marine, Lateglacial			
Bor no :	2	Depth:	1 m.b.s
Lab. no:	K2	Insitu stress.	~20 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 9.5
Approved:		Check:

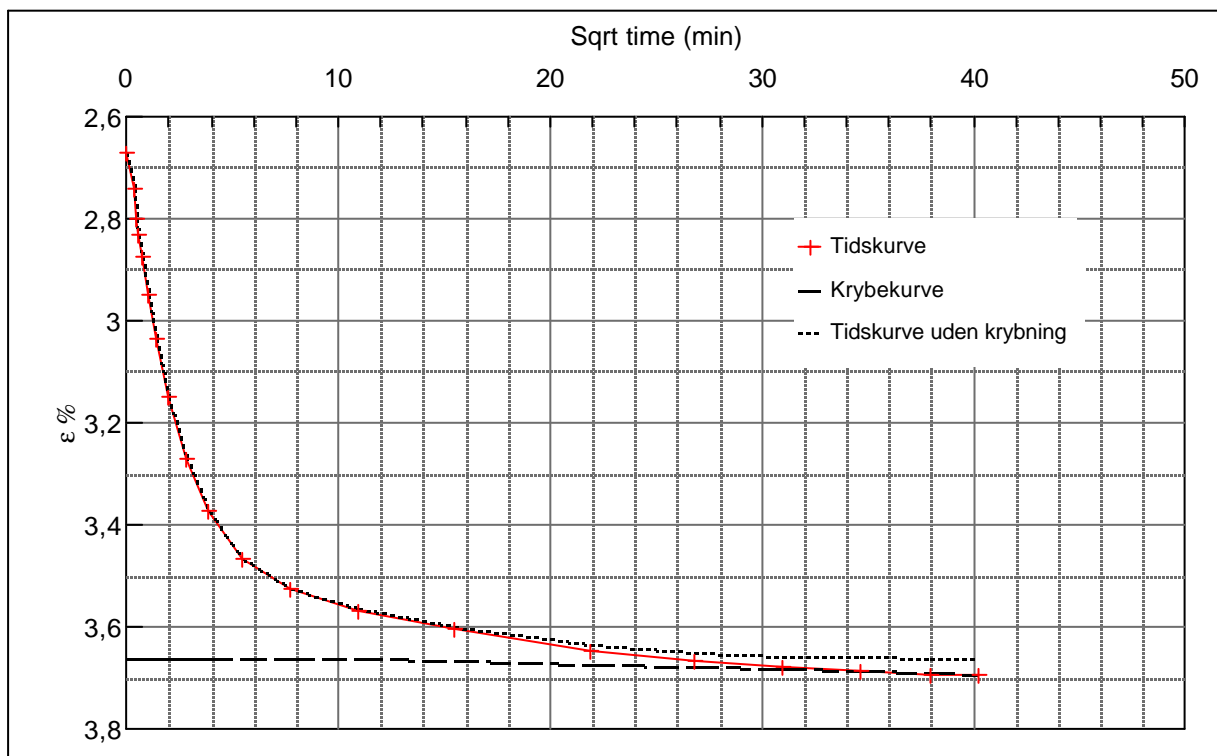
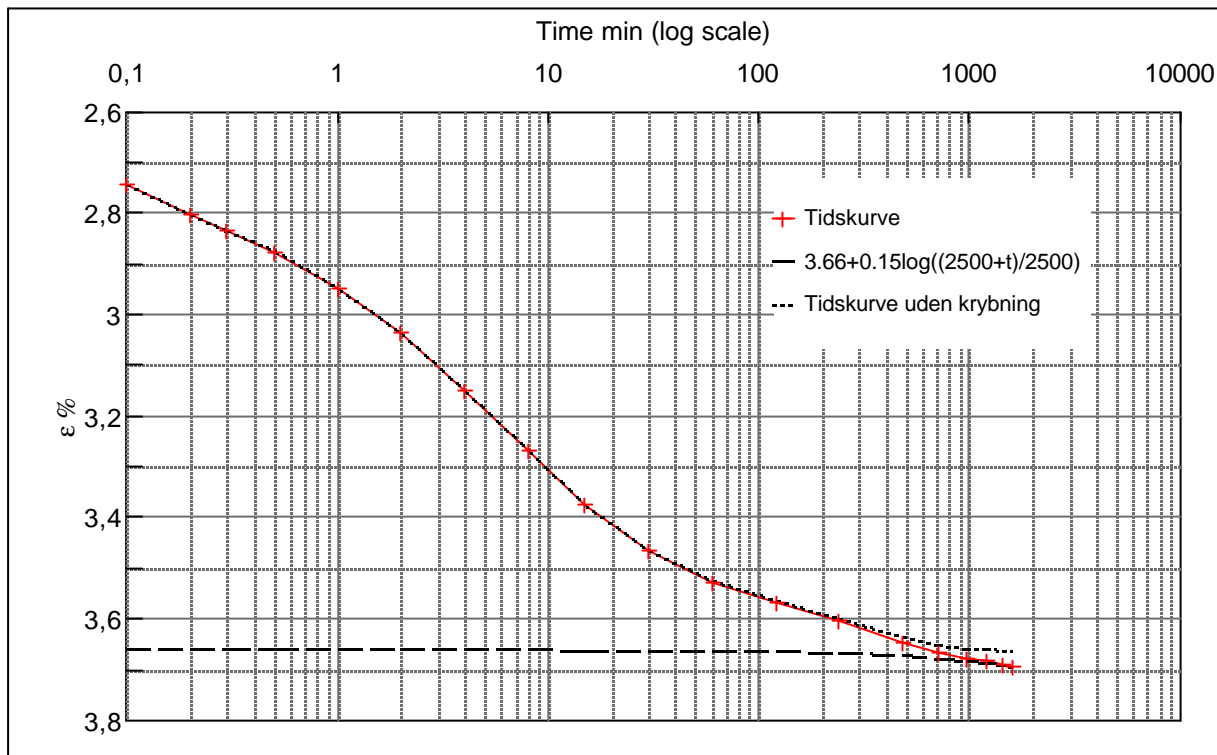
Step no 4	σ	kPa	ϵ	%	ϵ_i		tc in sec	1500
	Before	19,8	ϵ_0	1,80	ϵ_c %	2,64	K i kPa	2.073
	After	37,1	$\epsilon_{\sim\#}$	2,68	ϵ_s	0,10	k10 m/sec	3,1E-09
					ϵ_{kryb}	0,03	ck10 m^2/sec	6,47E-07



Material: Clay, marine, Lateglacial	
Bor no : 2	Depth: 1 m.b.s
Lab. no: K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 9.6
Approved:		Check:

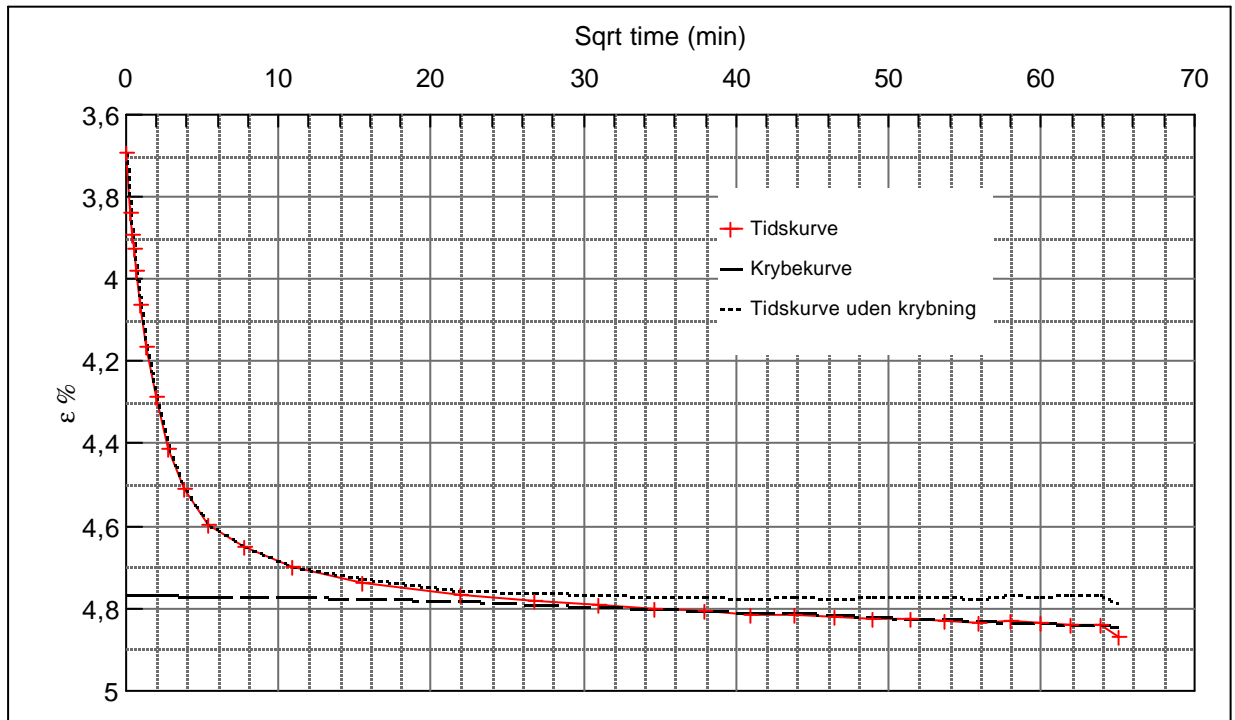
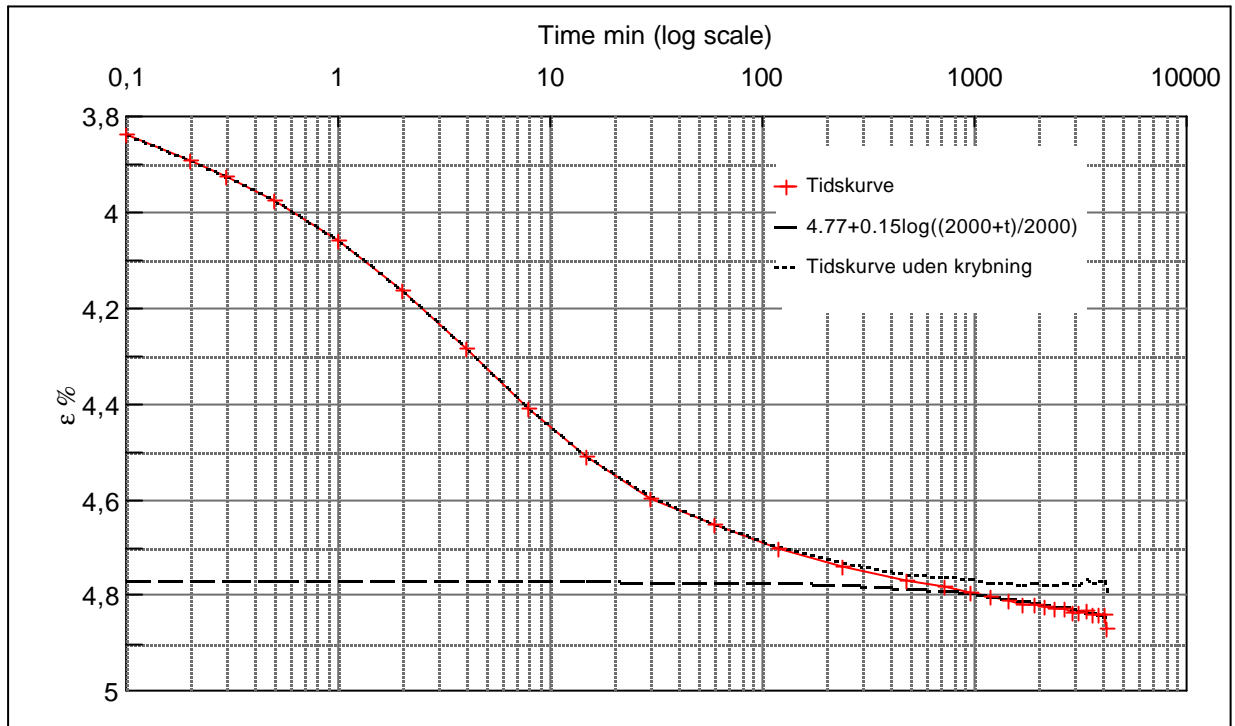
Step no 5	σ	kPa	ε	%	ε_i	tc in sec	960
	Before	37,1	ε_0	2,67	ε_c %	K i kPa	3.516
	After	71,8	$\varepsilon_{-#}$	3,69	ε_s	k10 m/sec	2,8E-09
					ε_{kryb}	ck10 m^2/sec	1,01E-06



Material: Clay, marine, Lateglacial	
Bor no : 2	Depth: 1 m.b.s
Lab. no: K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby	AAU
	Encl. No 9.7
Executed: AMS/gt	Check:
Approved:	

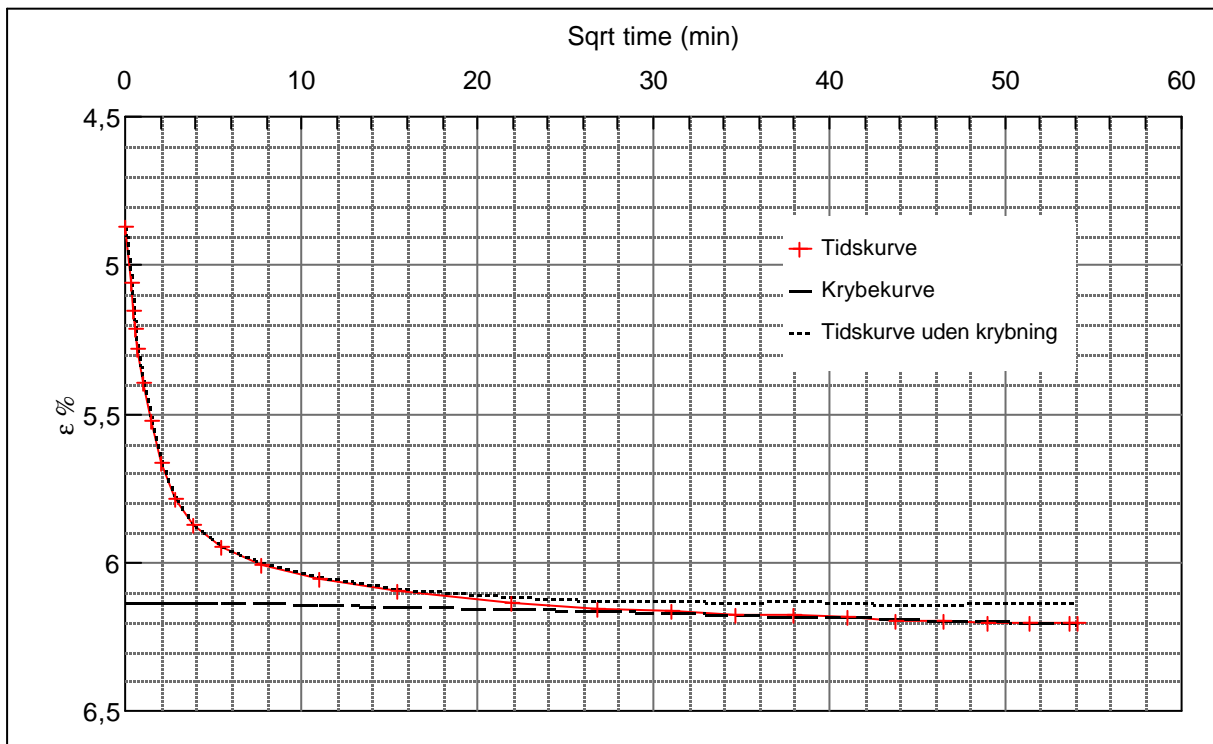
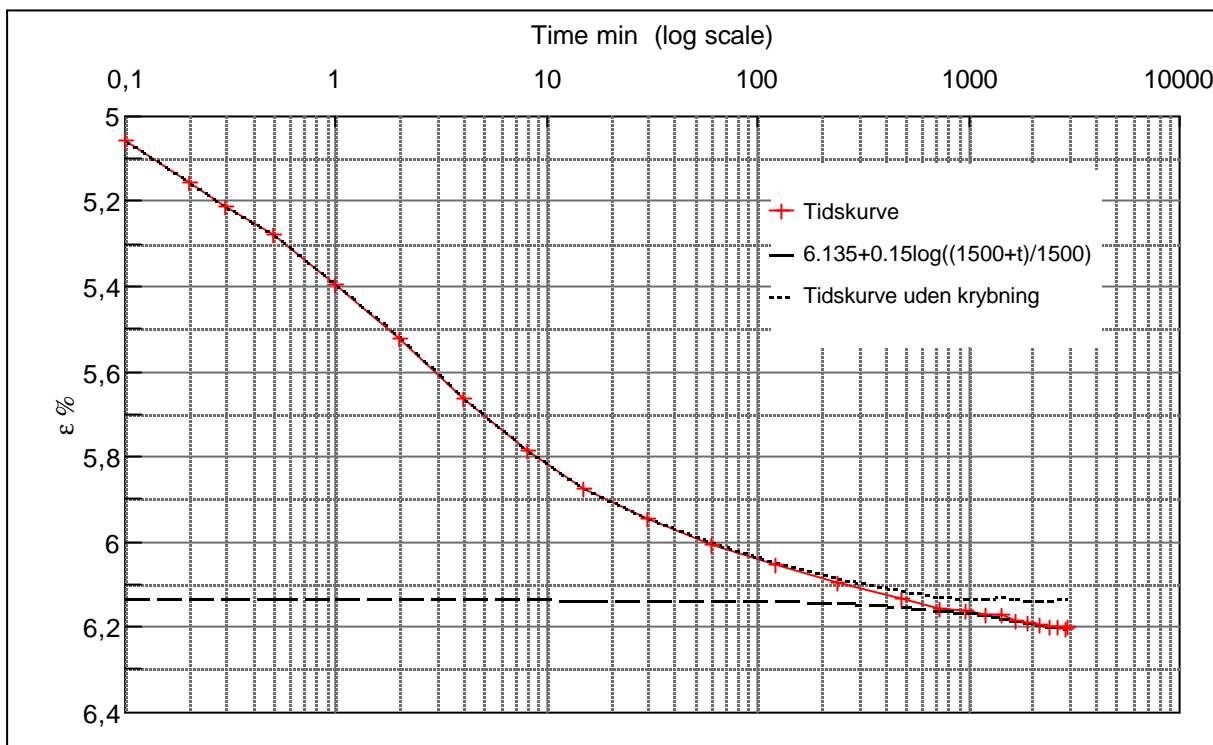
Step no 6	σ	kPa	ϵ	%	ϵ_i		tc in sec	614,4
	Before	71,8	ϵ_0	3,69	ϵ_c %	4,77	K i kPa	6.445
	After	141,2	$\epsilon_{\sim\#}$	4,87	ϵ_s	0,08	k10 m/sec	2,4E-09
					ϵ_{kryb}	0,10	ck10 m ² /sec	1,58E-06



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
		Encl. No 9.8
Executed:	AMS/gt	Check:
Approved:		

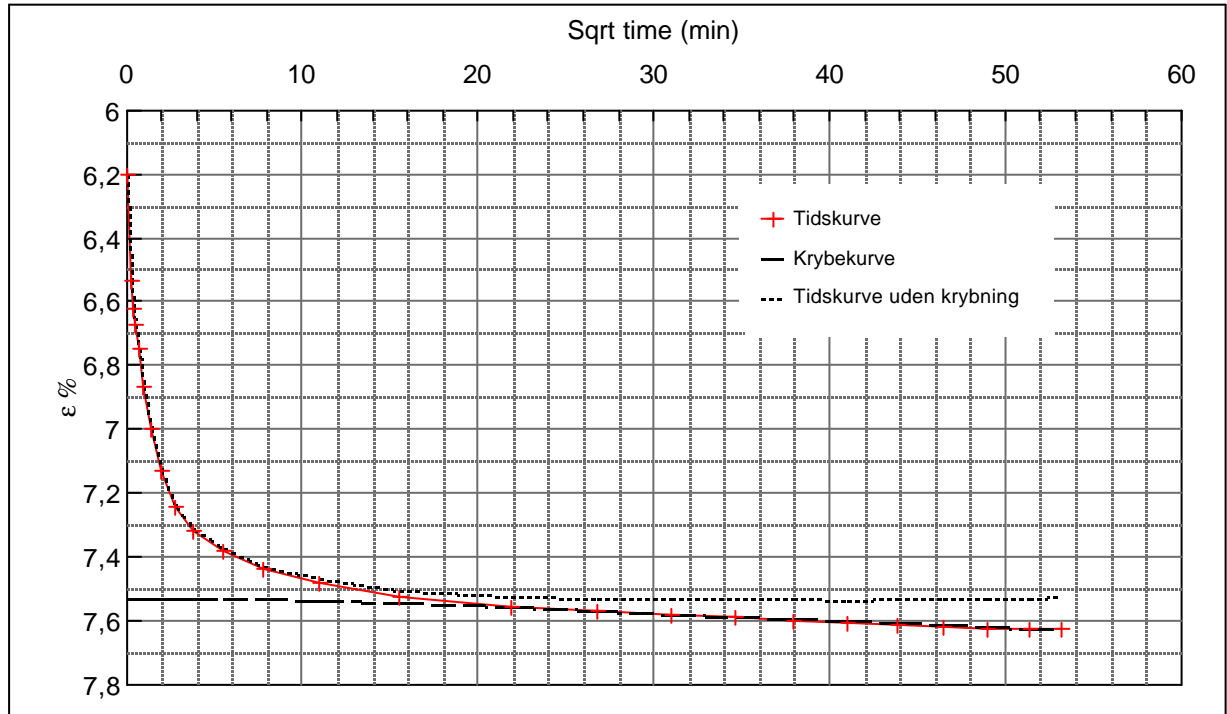
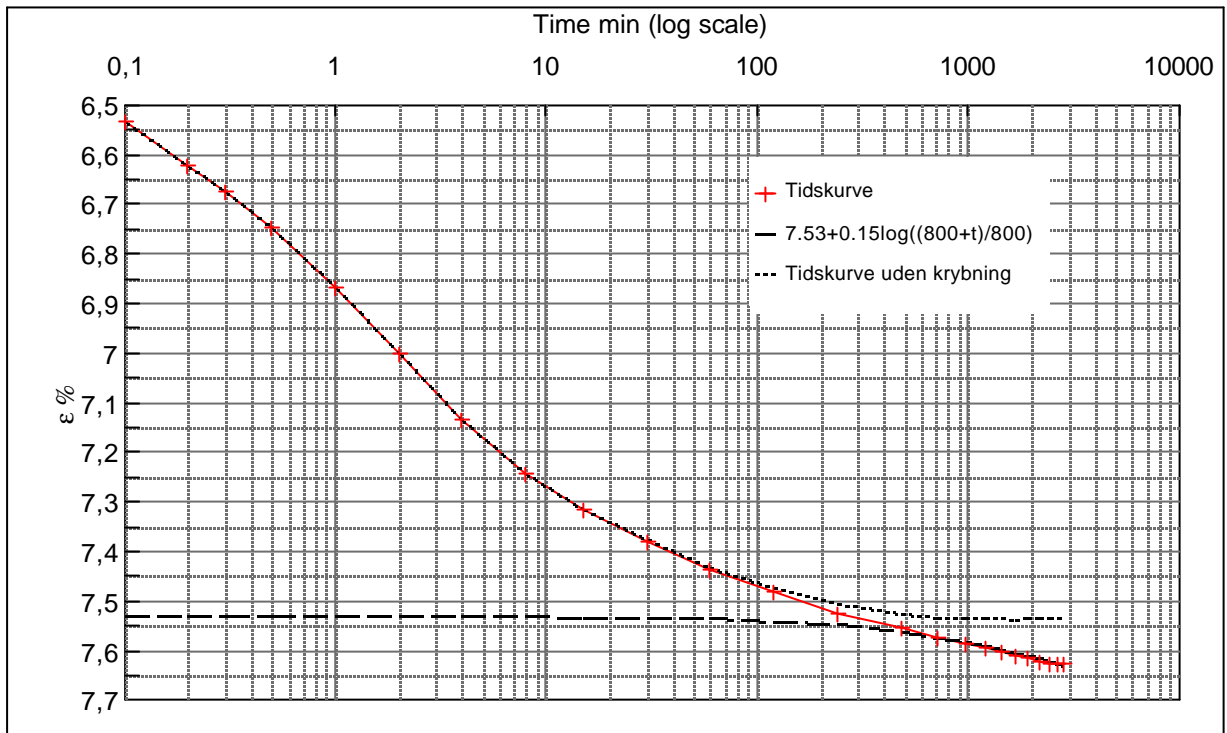
Step no 7	σ	kPa	ε	%	ε_i		tc in sec	375
	Before	141,2	ε_0	4,87	ε_c %	6,14	K i kPa	13.696
	After	314,7	$\varepsilon_{-#}$	6,20	ε_s	0,09	k10 m/sec	1,9E-09
					ε_{kryb}	0,06	ck10 m^2/sec	2,58E-06



Material: Clay, marine, Lateglacial			
Bor no :	2	Depth:	1 m.b.s
Lab. no:	K2	Insitu stress.	~20 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 9.9
Approved:		Check:

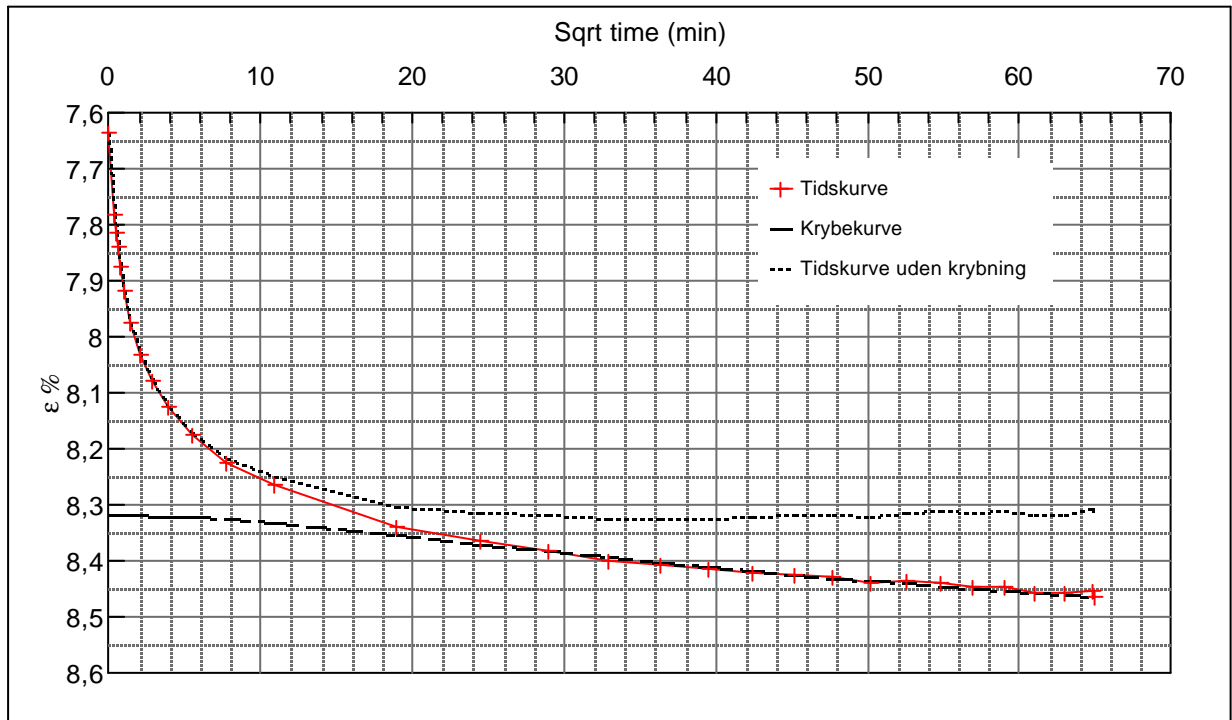
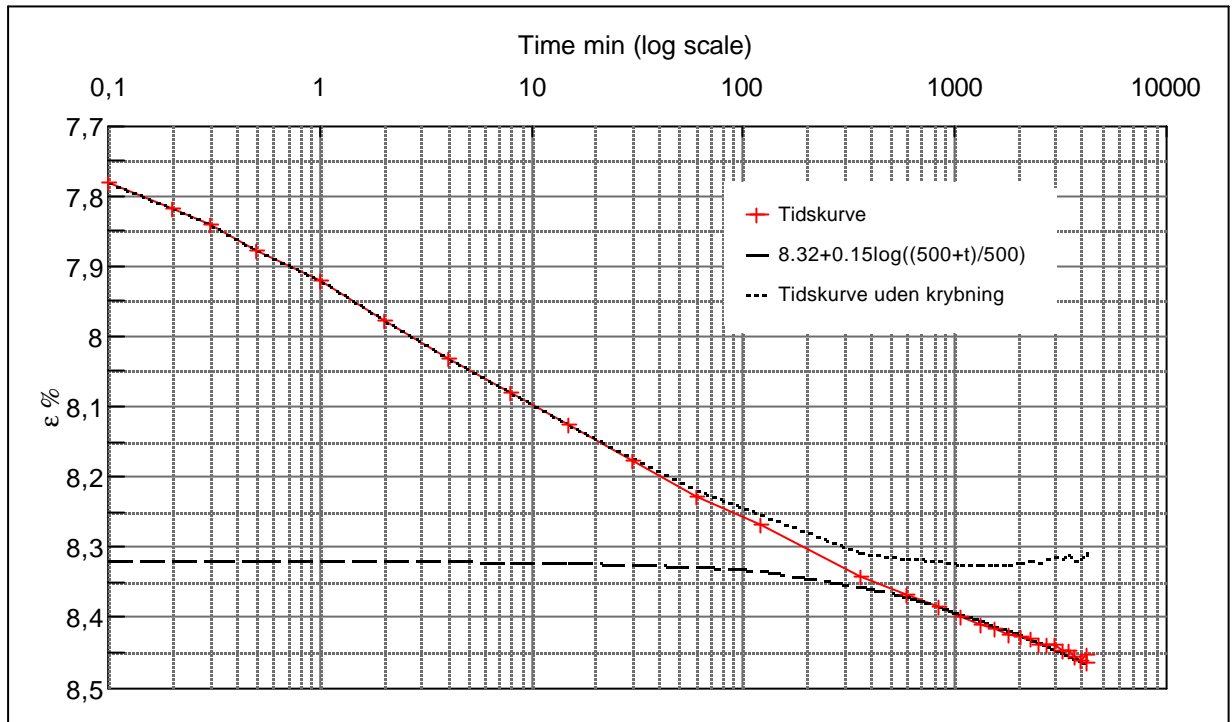
Step no 8	σ	kPa	ε	%	ε_i		tc in sec	240
	Before	314,7	ε_0	6,20	ε_c %	7,53	K i kPa	26.153
	After	661,6	$\varepsilon_{\sim\#}$	7,63	ε_s	0,10	k10 m/sec	1,5E-09
					ε_{kryb}	0,10	ck10 m ² /sec	4,04E-06



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job:		AAU
Nr. Lyngby		Encl. No 9.10
Executed:	AMS/gt	Check:
Approved:		

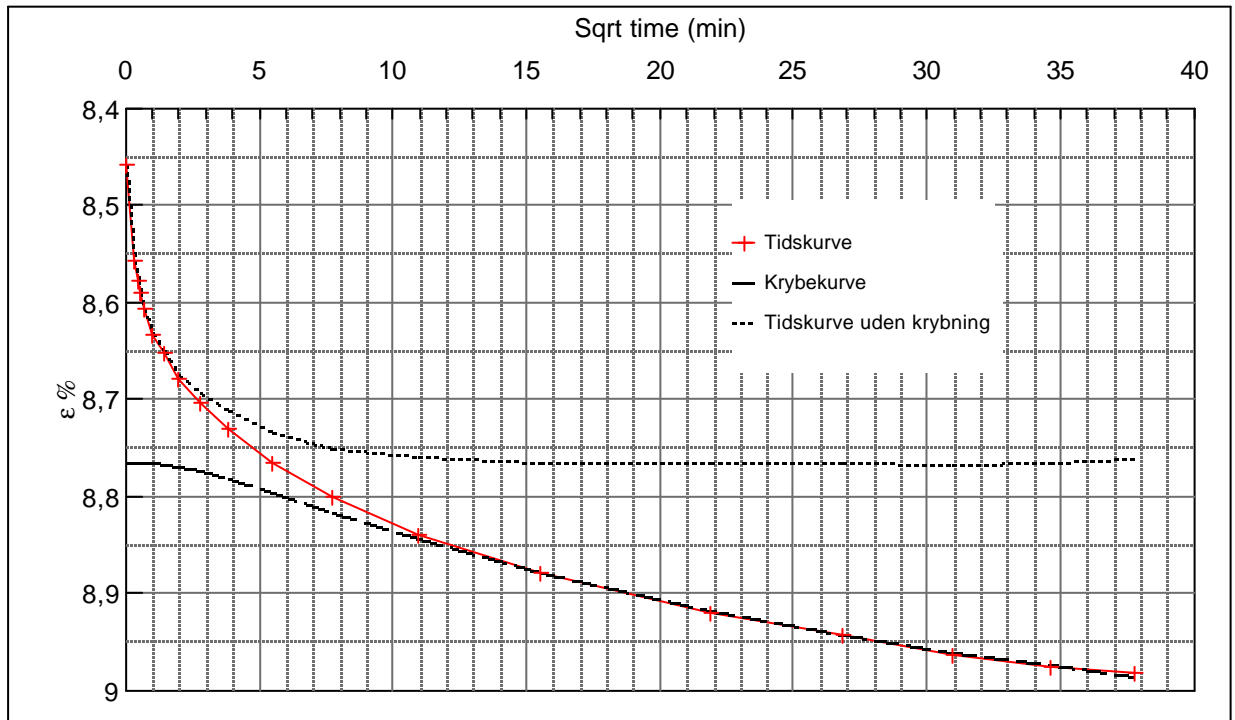
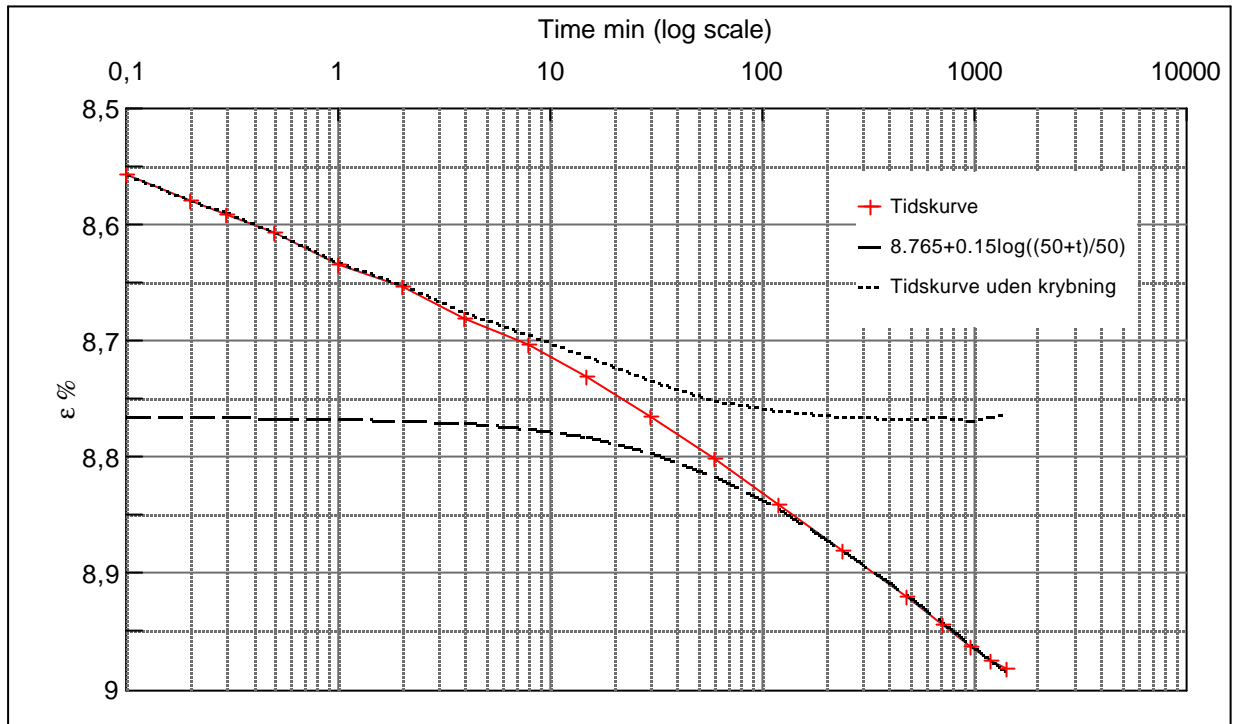
Step no 9	σ	kPa	ϵ	%	ϵ_i		tc in sec	290,4
	Before	661,6	ϵ_0	7,64	ϵ_c %	8,32	K i kPa	50.651
	After	1.008,6	$\epsilon_{\sim\#}$	8,47	ϵ_s	0,11	k10 m/sec	6,5E-10
					ϵ_{kryb}	0,15	ck10 m ² /sec	3,34E-06



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 9.11
Approved:		Check:

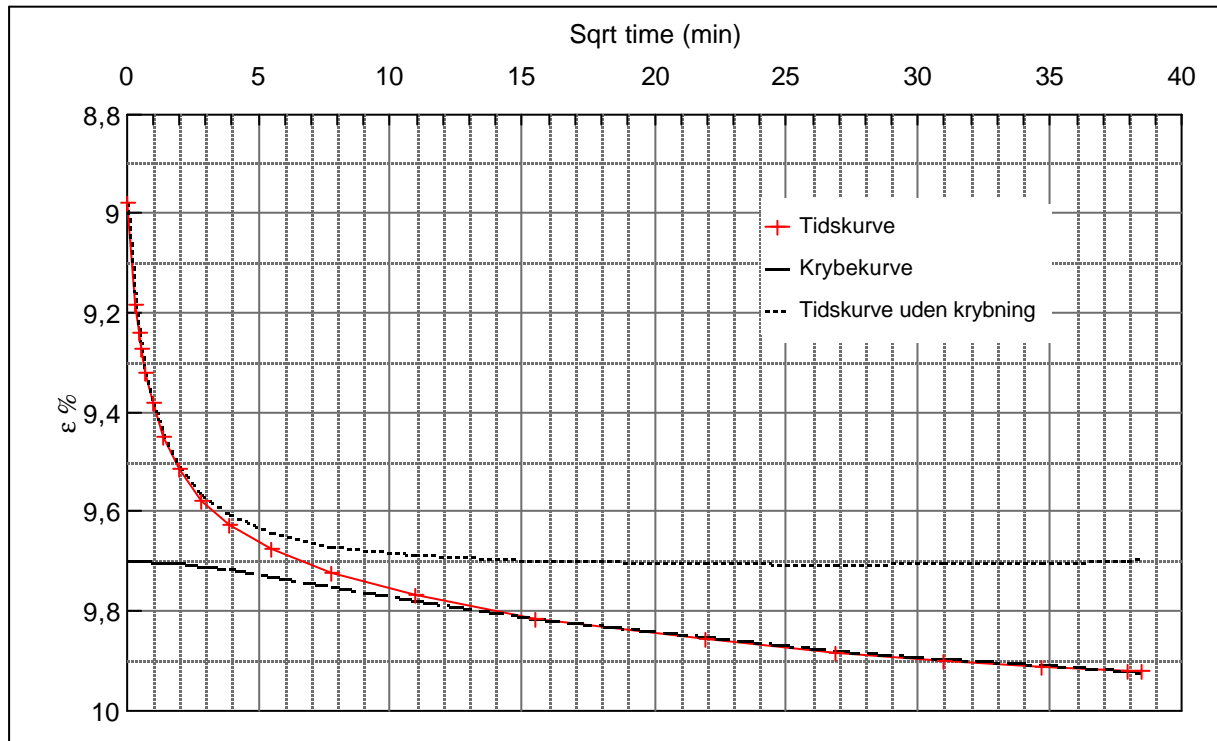
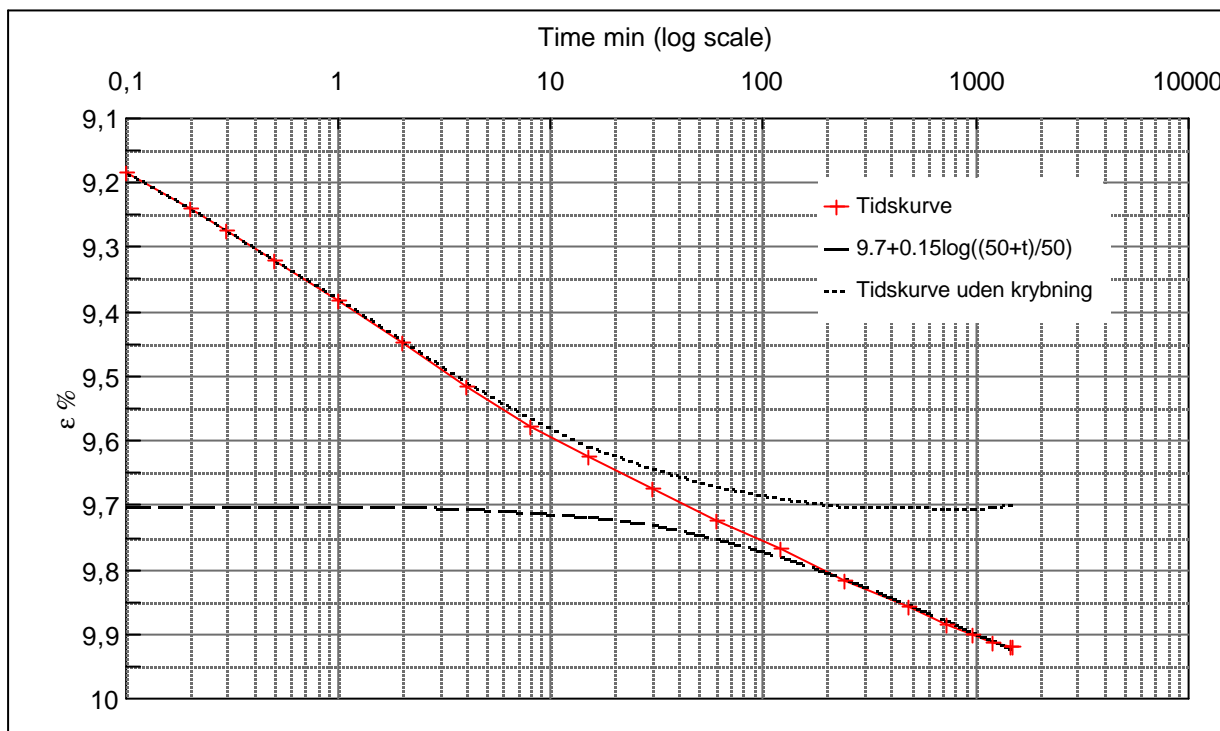
Step no 10	σ	kPa	ϵ	%	ϵ_i		tc in sec	135
	Before	1.008,6	ϵ_0	8,46	ϵ_c %	8,77	K i kPa	113.138
	After	1.355,6	$\epsilon_{\sim\#}$	8,98	ϵ_s	0,15	k10 m/sec	6,2E-10
					ϵ_{kryb}	0,22	ck10 m^2 /sec	7,18E-06



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 9.12
Approved:		Check:

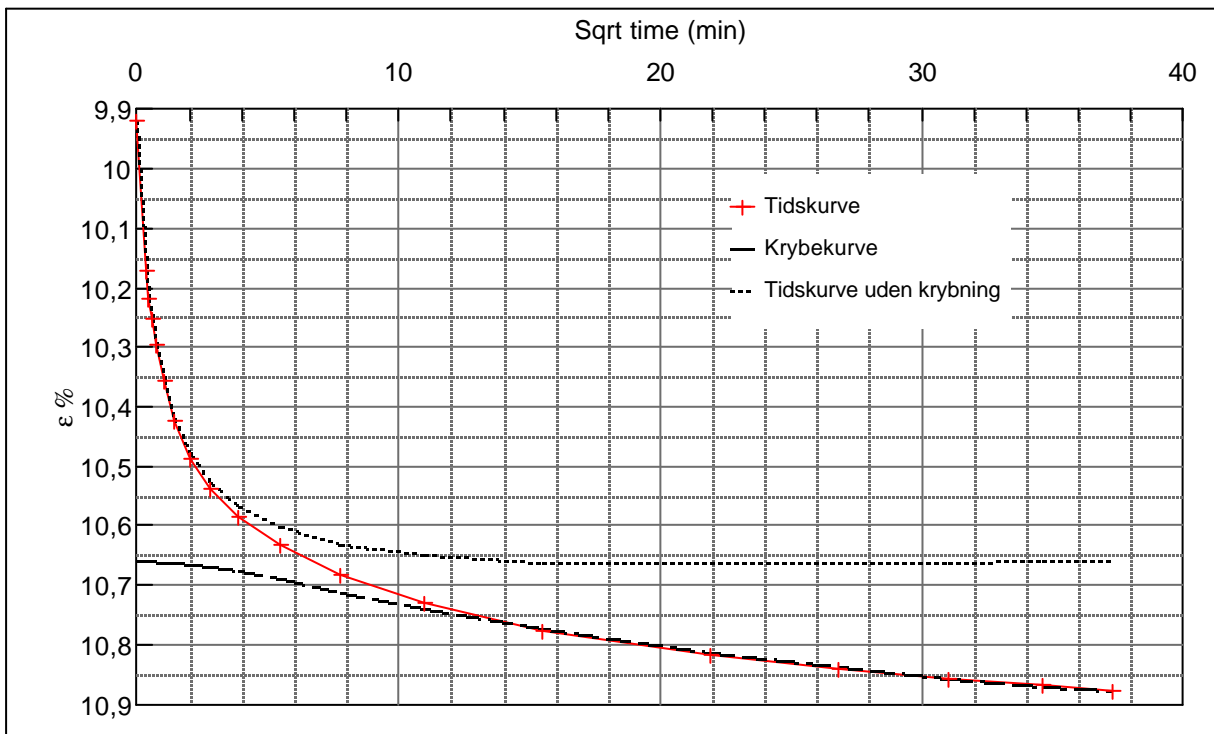
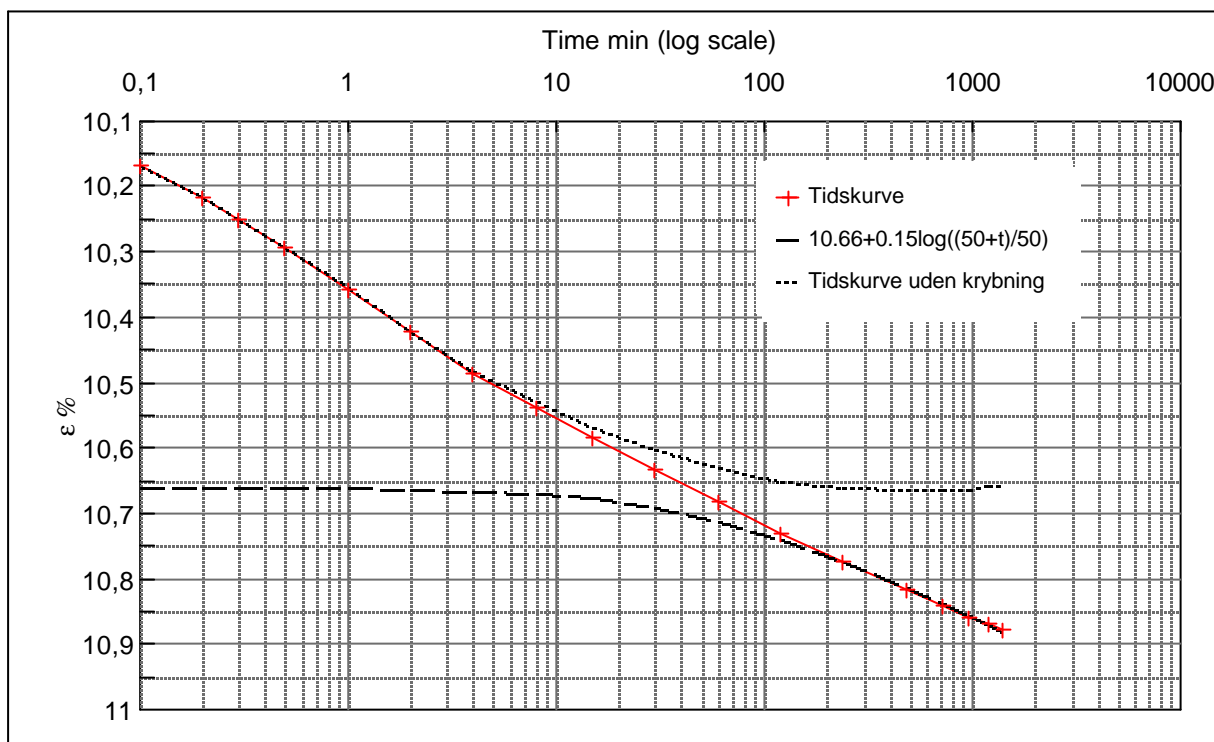
Step no 11	σ	kPa	ϵ	%	ϵ_i		tc in sec	135
	Before	1.355,6	ϵ_0	8,98	ϵ_c %	9,70	K i kPa	96.377
	After	2.049,5	$\epsilon_{-#}$	9,92	ϵ_s	0,15	k10 m/sec	7,3E-10
					ϵ_{kryb}	0,22	ck10 m ² /sec	7,18E-06



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
		Encl. No 9.13
Executed:	AMS/gt	Check:
Approved:		

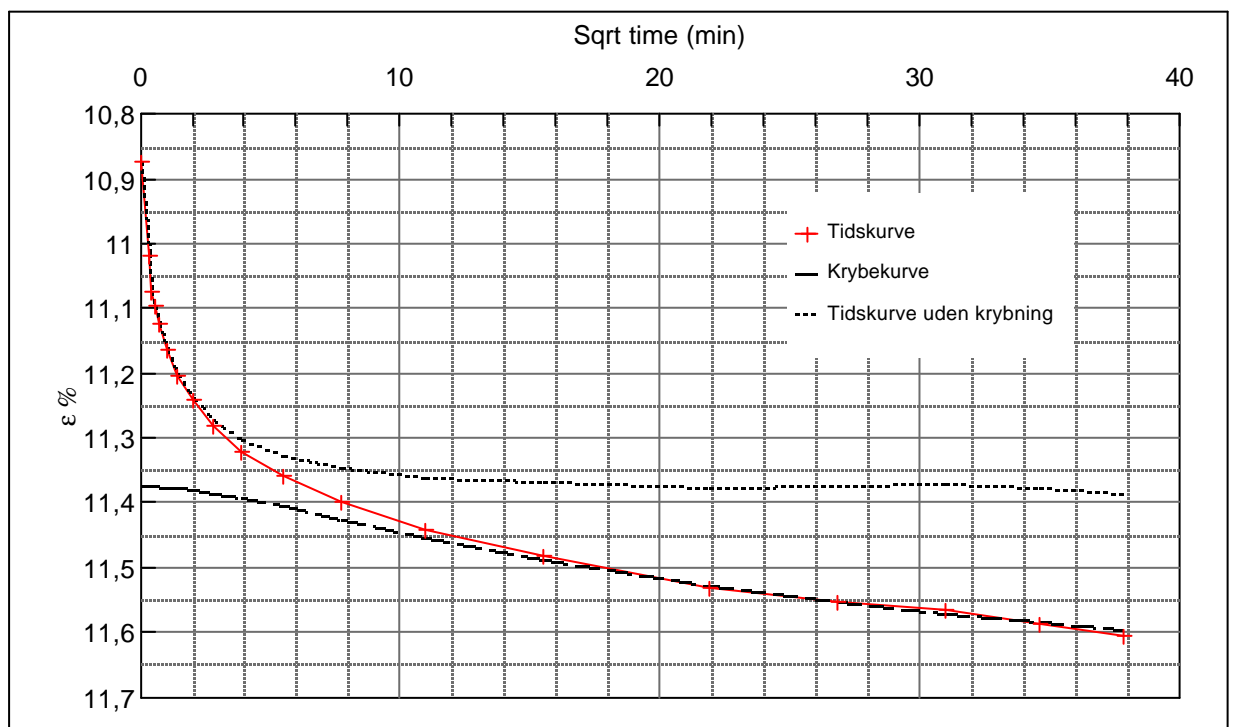
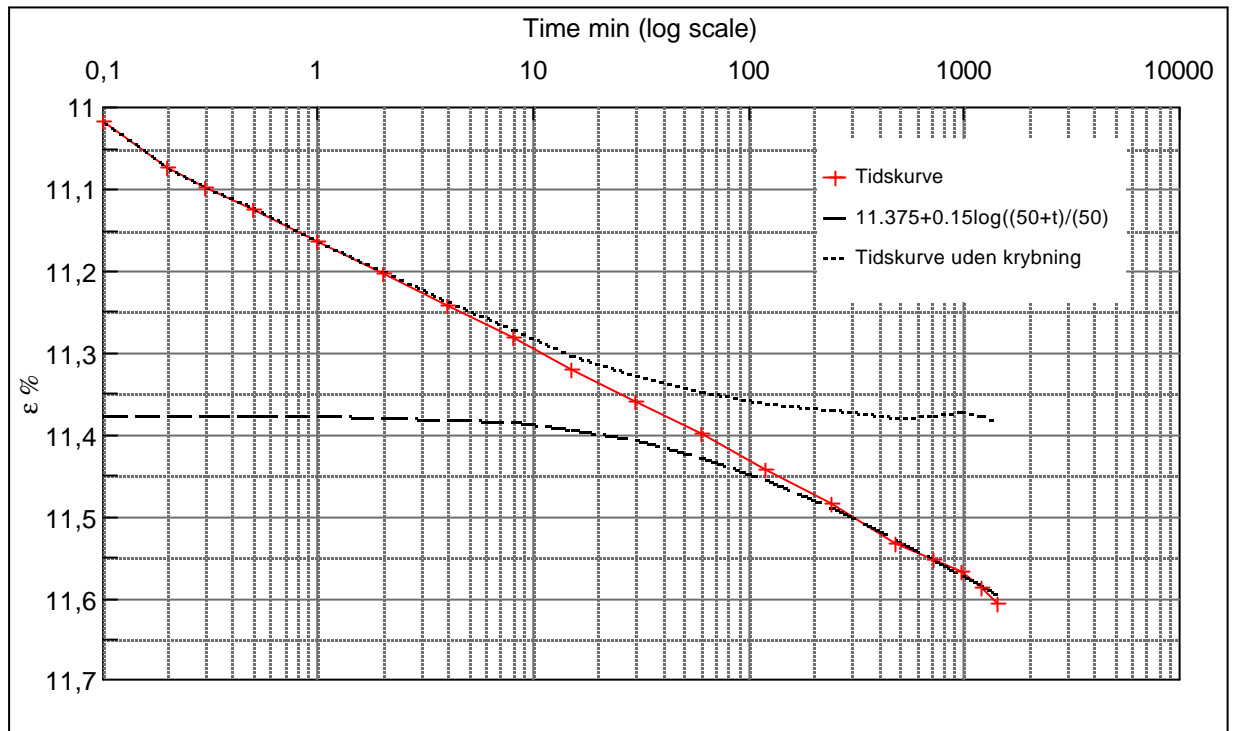
Step no 12	σ	kPa	ε	%	ε_i		tc in sec	60
	Before	2.049,5	ε_0	9,92	ε_c %	10,66	K i kPa	140.342
	After	3.090,4	$\varepsilon_{-#}$	10,88	ε_s	0,15	k10 m/sec	1,1E-09
					ε_{kryb}	0,22	ck10 m^2/sec	1,62E-05



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
		Encl. No 9.14
Executed:	AMS/gt	Check:
Approved:		

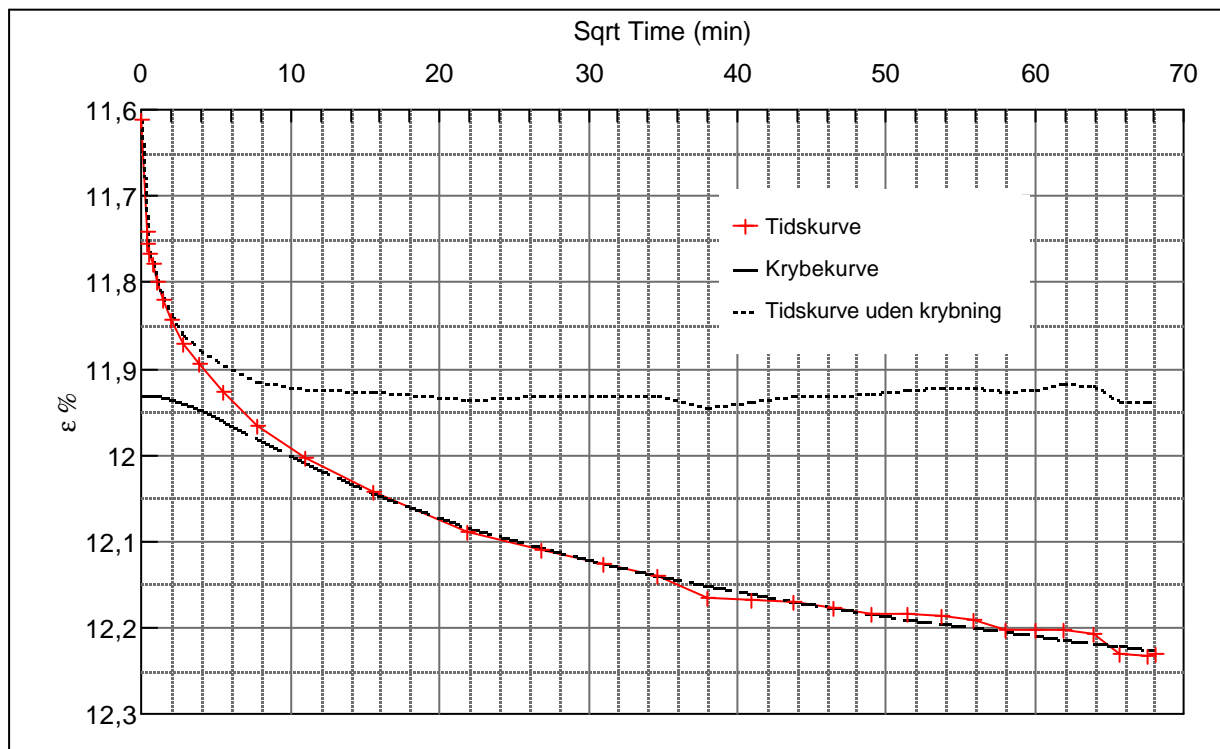
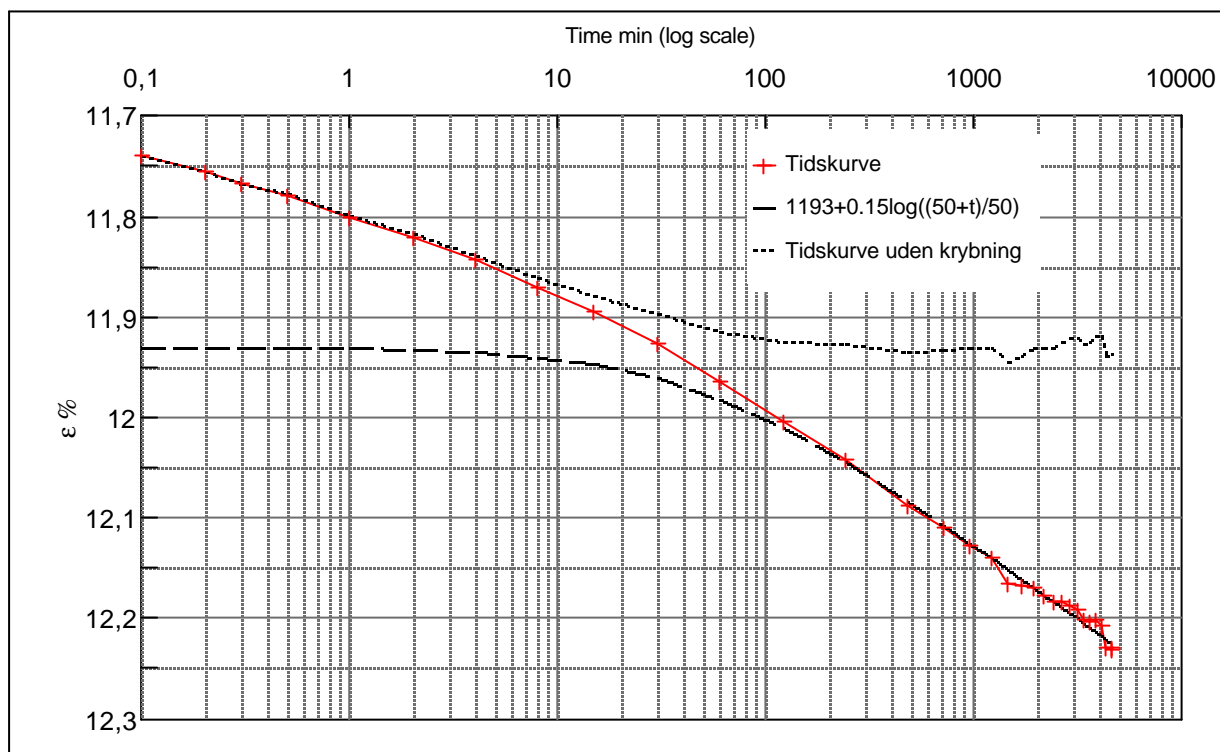
Step no 13	σ	kPa	ϵ	%	ϵ_i		tc in sec	86,4
	Before	3.090,4	ϵ_0	10,87	ϵ_c %	11,38	K i kPa	207.483
	After	4.131,2	$\epsilon_{\sim\#}$	11,61	ϵ_s	0,15	k10 m/sec	5,3E-10
					ϵ_{kryb}	0,23	ck10 m ² /sec	1,12E-05



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job:		AAU
Nr. Lyngby		Encl. No 9.15
Executed:	AMS/gt	Check:
Approved:		

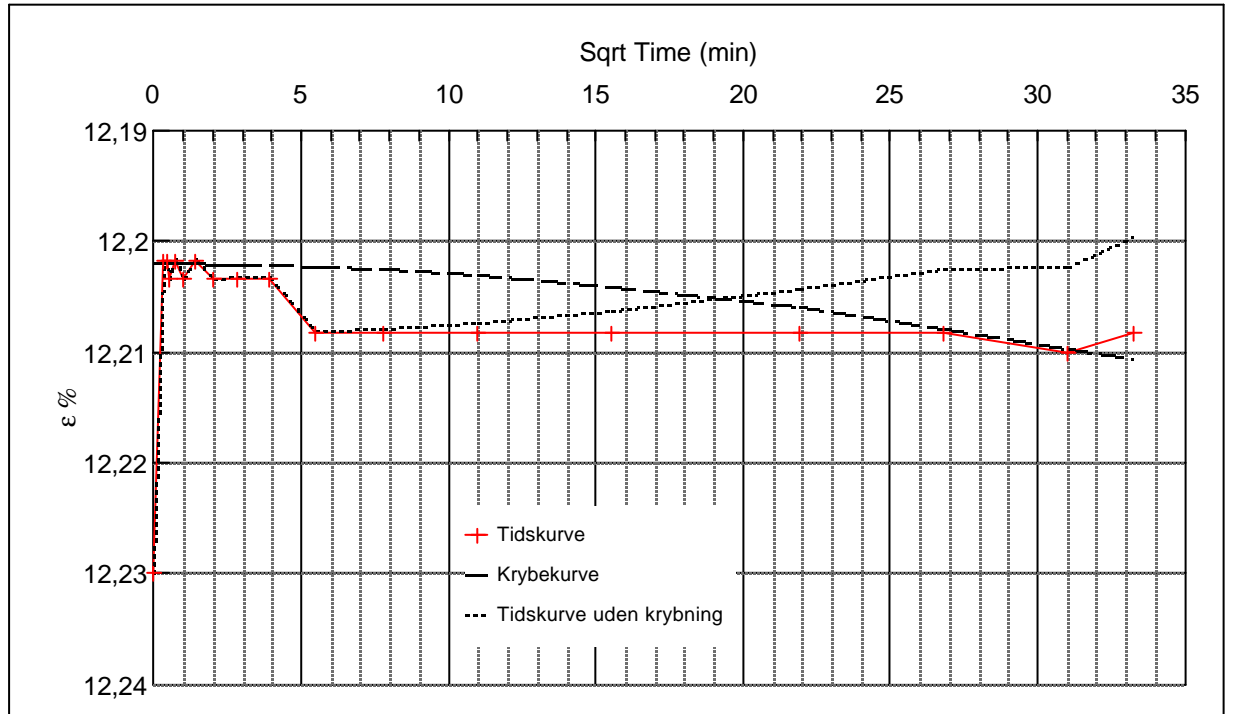
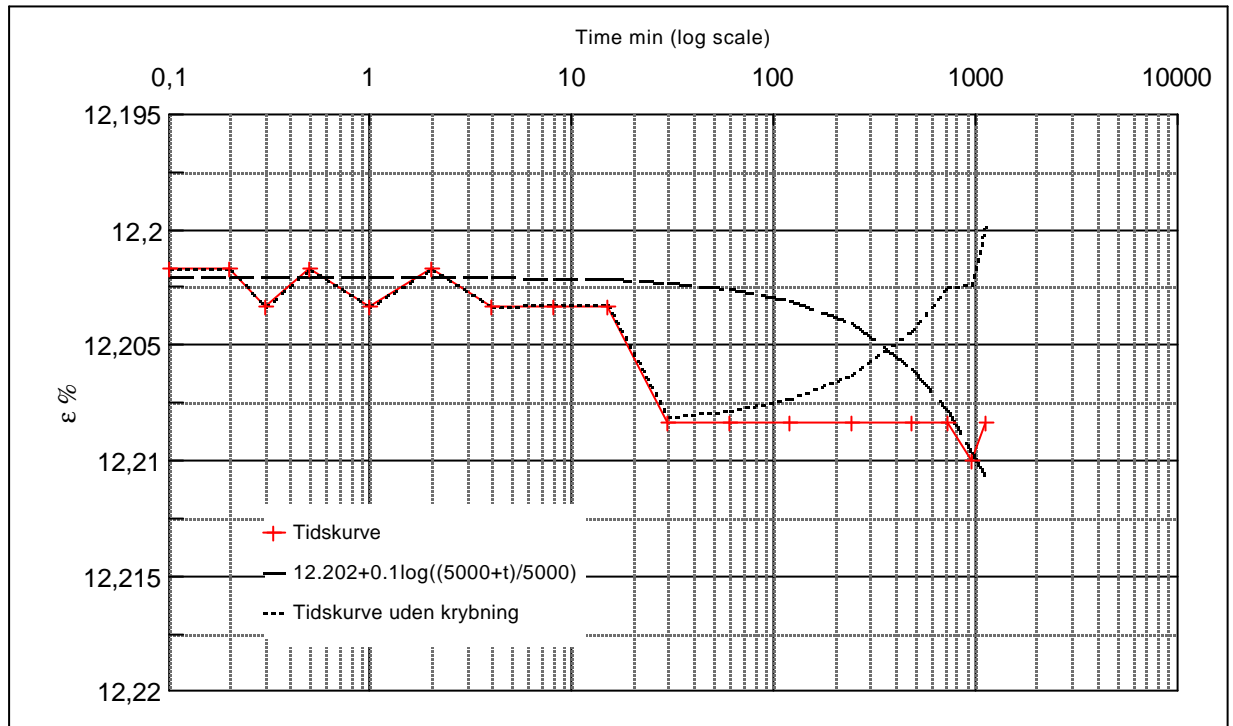
Step no 14	σ	kPa	ϵ	%	ϵ_i	tc in sec	135
	Before	4.131,23	ϵ_0	11,61	ϵ_c %	K i kPa	325.273
	After	5.172,10	$\epsilon_{\sim\#}$	12,23	ϵ_s	k10 m/sec	2,2E-10
					ϵ_{kryb}	ck10 m^2/sec	7,18E-06



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
		Encl. No 9.16
Executed:	AMS/gt	Check:
Approved:		

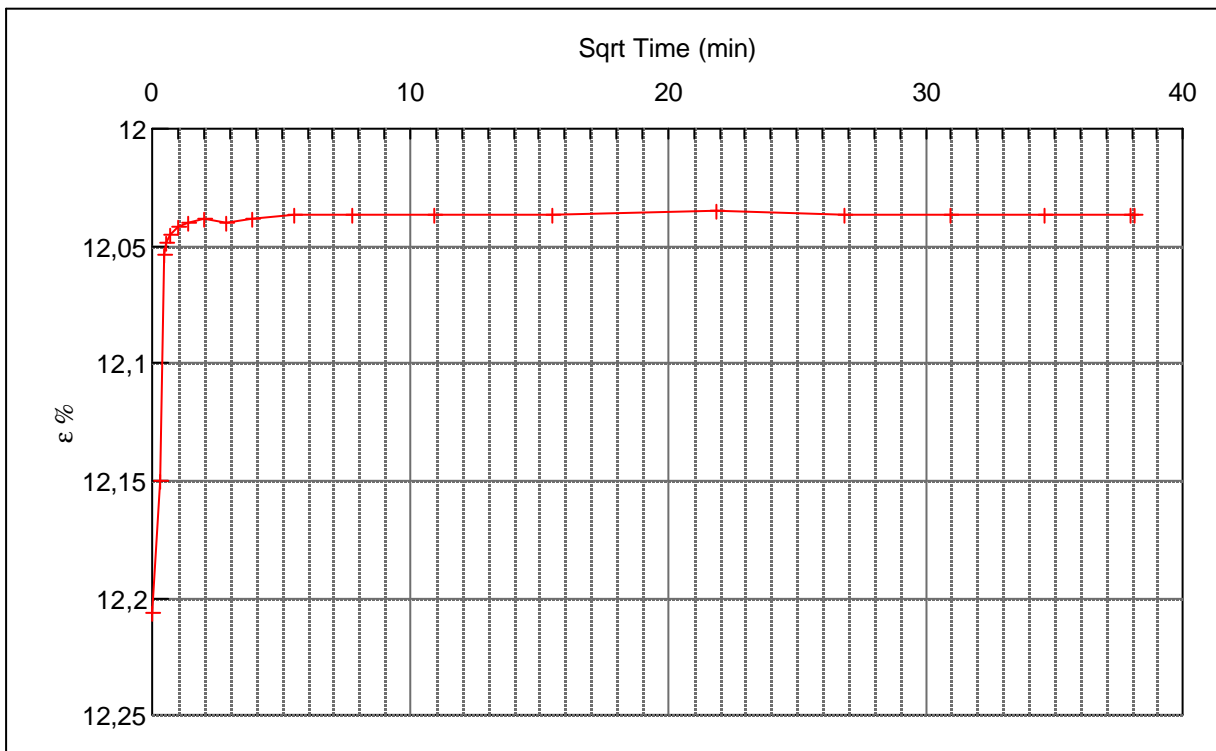
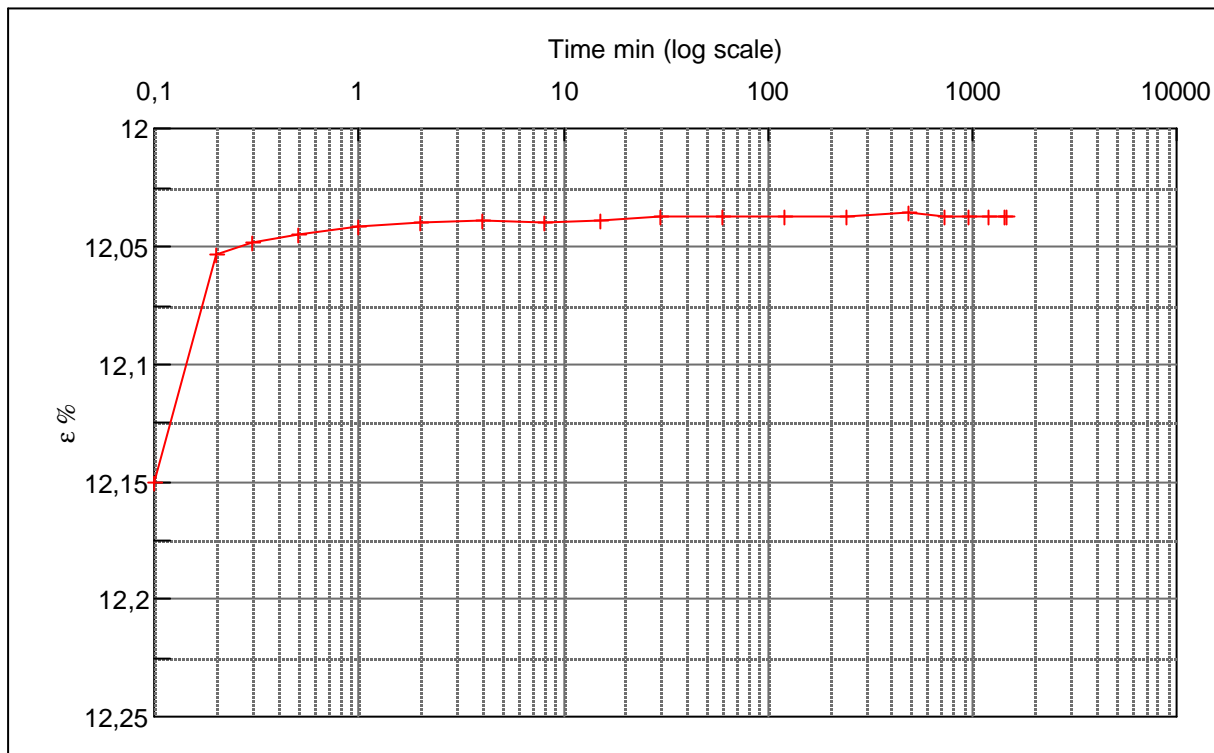
Step no 15	σ	kPa	ϵ	%	ϵ_i		tc in sec	5,4
	Before	5.172,1	ϵ_0	12,23	ϵ_c %	12,20	K i kPa	7.434.809
	After	3.090,4	$\epsilon_{\sim\#}$	12,21	ϵ_s		k10 m/sec	2,4E-10
					ϵ_{kryb}		ck10 m ² /sec	1,80E-04



Material: Clay, marine, Lateglacial		
Bor no :	2	Depth: 1 m.b.s
Lab. no:	K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 9.17
Approved:		Check:

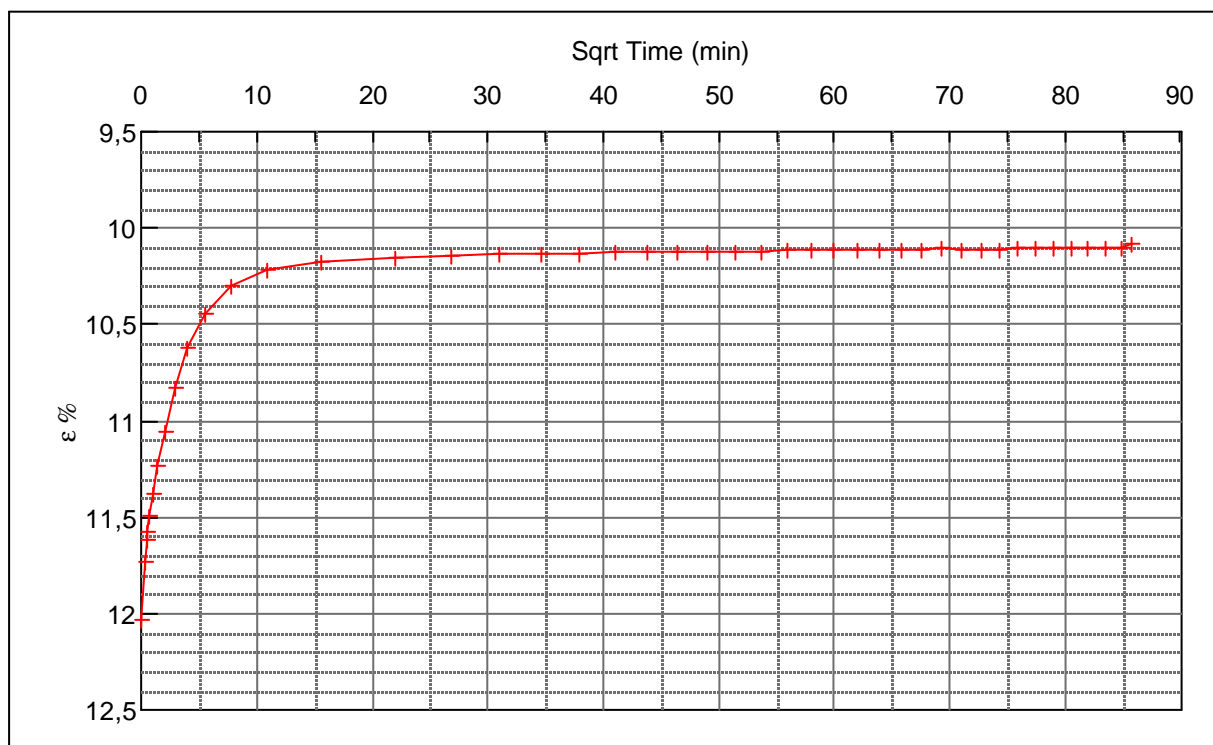
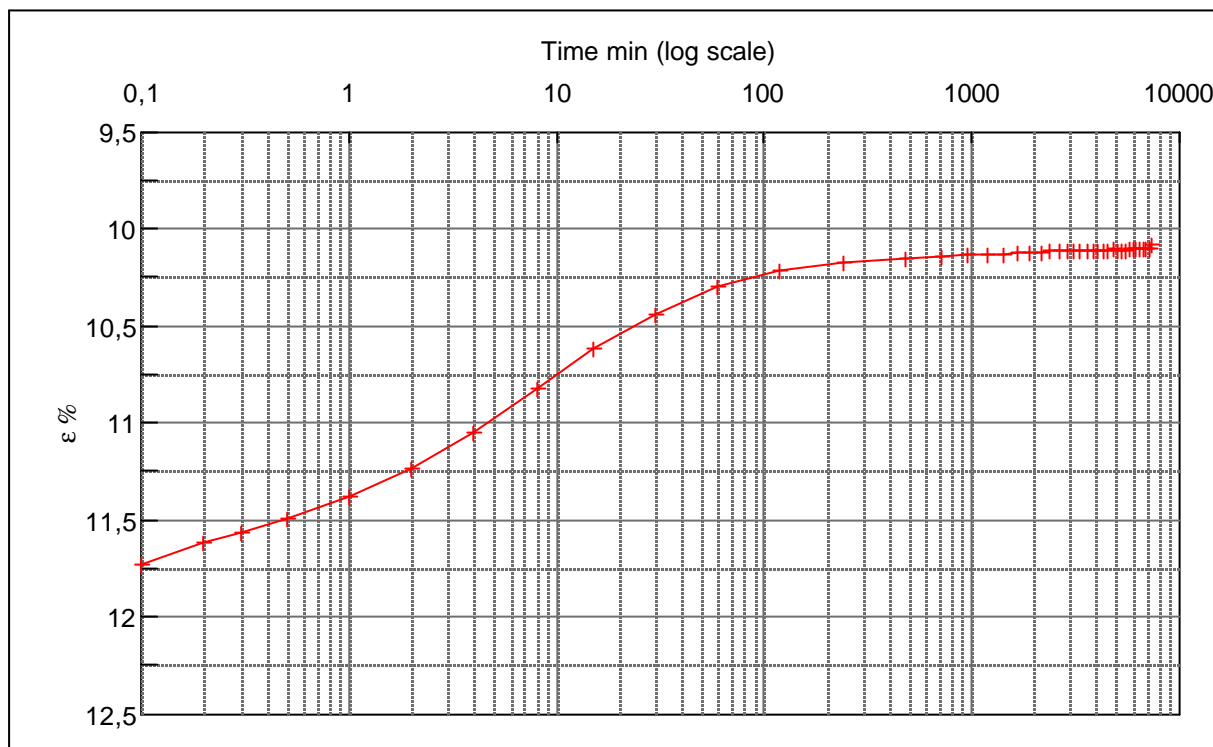
Step no 16	σ	kPa	ε	%	ε_i	tc in sec	60
	Before	3.090,4	ε_0	12,21	ε_c %	K i kPa	1.431.456
	After	661,6	$\varepsilon_{-#}$	12,04	ε_s	k10 m/sec	1,1E-10
					ε_{kyb}	ck10 m ² /sec	1,62E-05



Material: Clay, marine, Lateglacial	
Bor no : 2	Depth: 1 m.b.s
Lab. no: K2	Insitu stress. ~20 kPa

Job: Nr. Lyngby	AAU
	Encl. No 9.18
Executed: AMS/gt	Check:
Approved:	

Step no 17	σ	kPa	ε	%	ε_i		tc in sec	1500
	Before	661,6	ε_0	12,03	ε_c %	10,08	K i kPa	33.800
	After	2,43	$\varepsilon_{-#}$	10,08	ε_s		k10 m/sec	1,9E-10
					ε_{kryb}		ck10 m^2/sec	6,47E-07

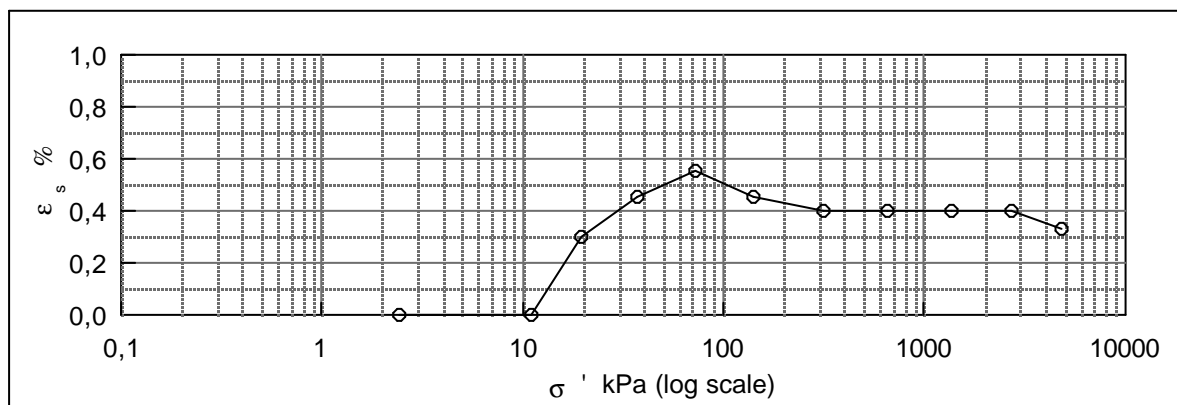
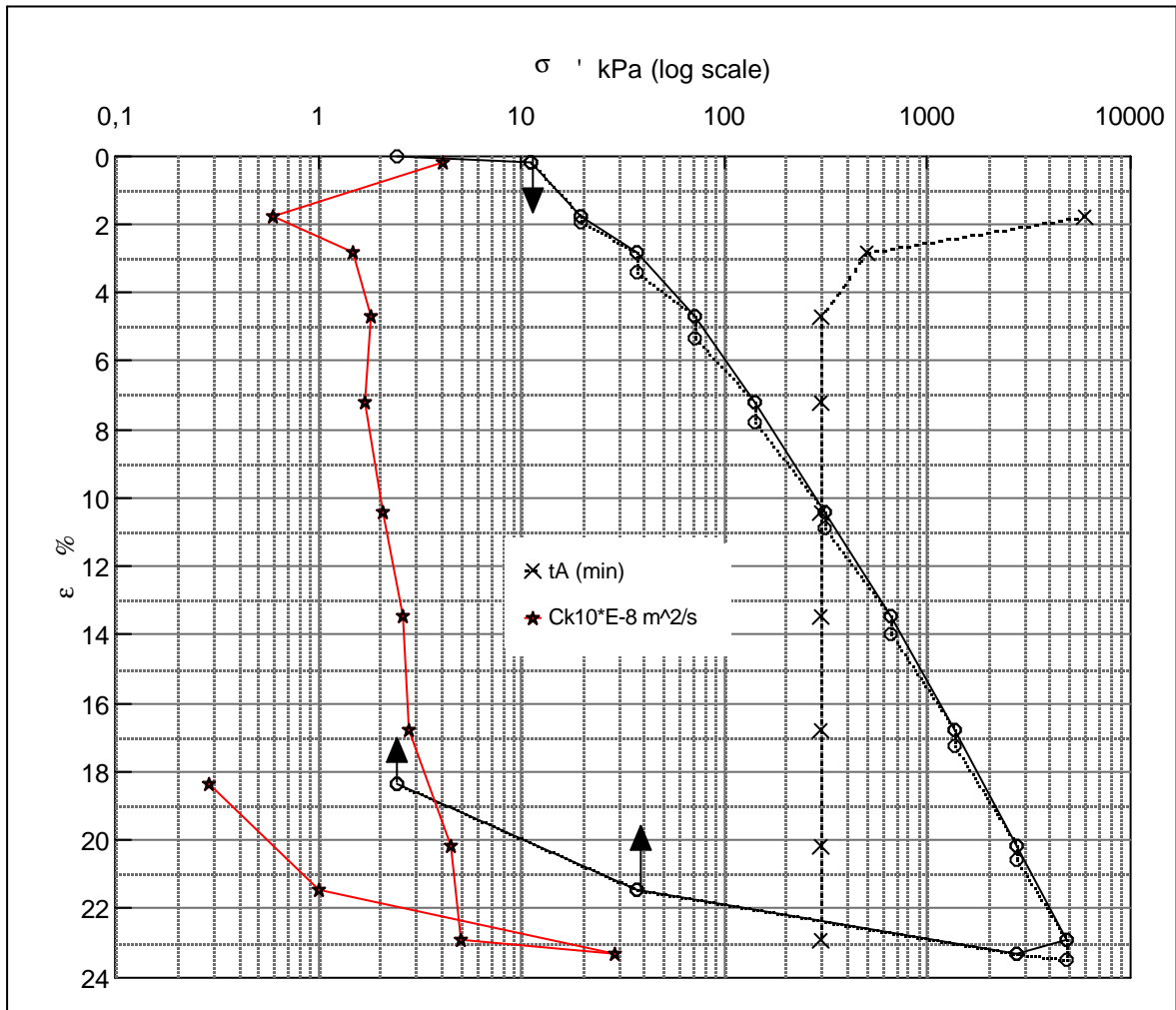


Material: Clay, marine, Lateglacial			
Bor no :	2	Depth:	1 m.b.s
Lab. no:	K2	Insitu stress.	~20 kPa

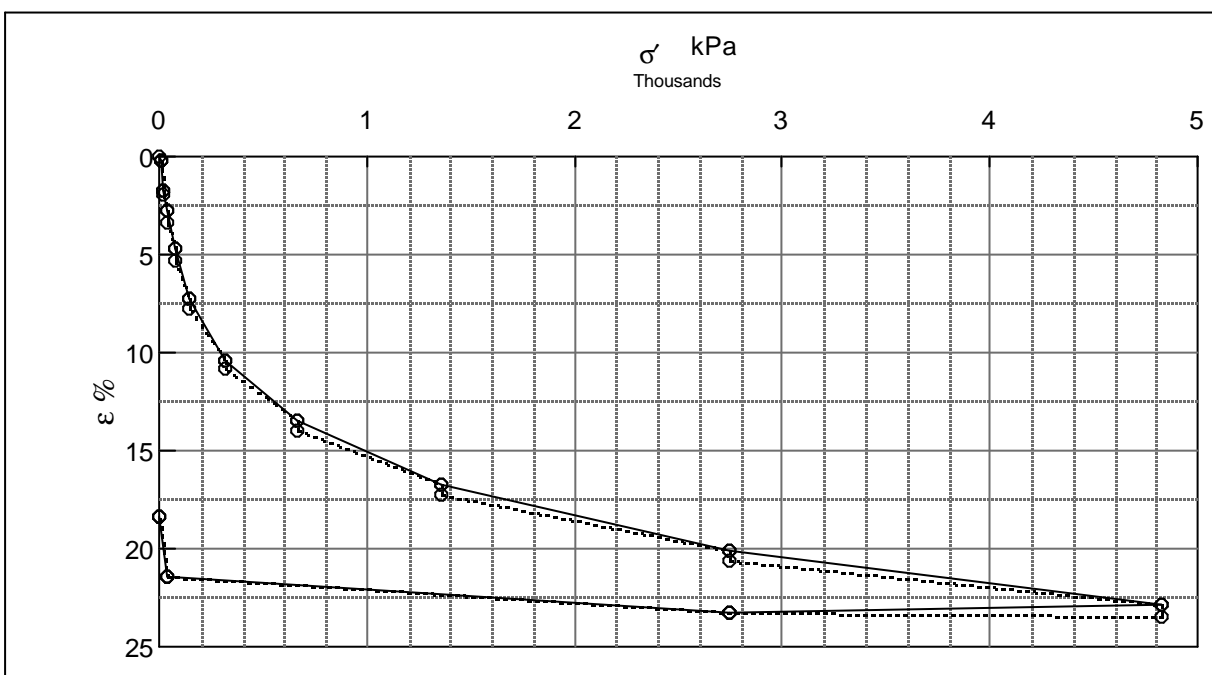
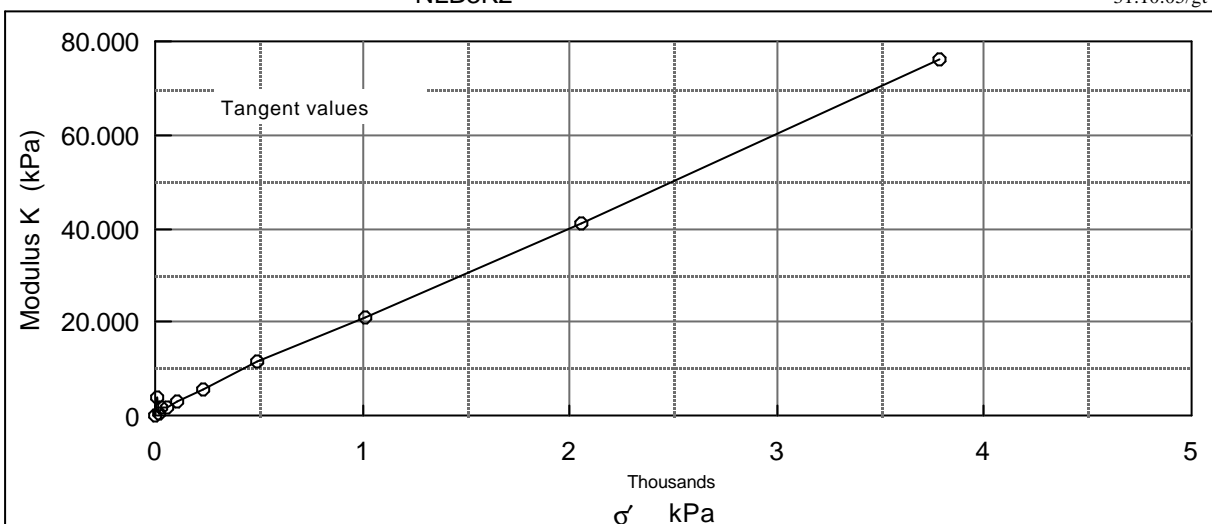
Job: Nr. Lyngby		AAU
		Encl. No 9.19
Executed:	AMS/gt	Check:
Approved:		

31.10.05/gt

Description of soil: Clay, marine, Lateglacial			Water content %	Before	After
			Bulk density Mg / m ³	32,7	21,2
			Grain density Mg / m ³	1,90	2,08
Bor no : 3	Overburden pressure σ'_o	30 kPa	Void ratio	0,89	0,57
Lab. no: K2	Vane strength c_v	100 kPa	Degr. of Saturation %	99	100
Level : 2.5 m.b.s	CPT - value q_c	MPa	Dimension H x D mm	30x60	25x60



Job: Nr. Lyngby		AAU
		Encl. No 10.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ' kPa	ϵ_c %	ϵ_s % / lct	c k10 m ² /s	σ'_m kPa	K kPa	w %
Q	11 %	2,4	0,00	-	-	-	-	32,7
Qs	0,55 %	11,1	0,22	0,00	4,0E-08	6,8	3978,9	32,6
σ'_{pc}	>30 kPa	19,8	1,77	0,30	6,0E-09	15,4	558,9	31,5
		37,1	2,80	0,45	1,5E-08	28,5	1684,3	30,8
		71,8	4,70	0,55	1,8E-08	54,5	1826,1	29,4
		141,2	7,22	0,45	1,7E-08	106,5	2753,6	27,7
		314,7	10,40	0,40	2,1E-08	228,0	5455,3	25,4
		661,6	13,46	0,40	2,6E-08	488,2	11338,5	23,3
		1.355,6	16,77	0,40	2,8E-08	1.008,6	20964,2	21,0
		2.743,4	20,16	0,40	4,5E-08	2.049,5	40939,0	18,6
		4.825,1	22,89	0,33	5,0E-08	3.784,3	76254,5	16,7
		2.743,4	23,32	0,00	2,9E-07	3.784,3	-487528,5	16,4
		37,1	21,47	0,00	1,0E-08	1.390,3	146284,9	17,7
		2,4	18,37	0,00	2,9E-09	19,8	1119,6	19,9

Remark:

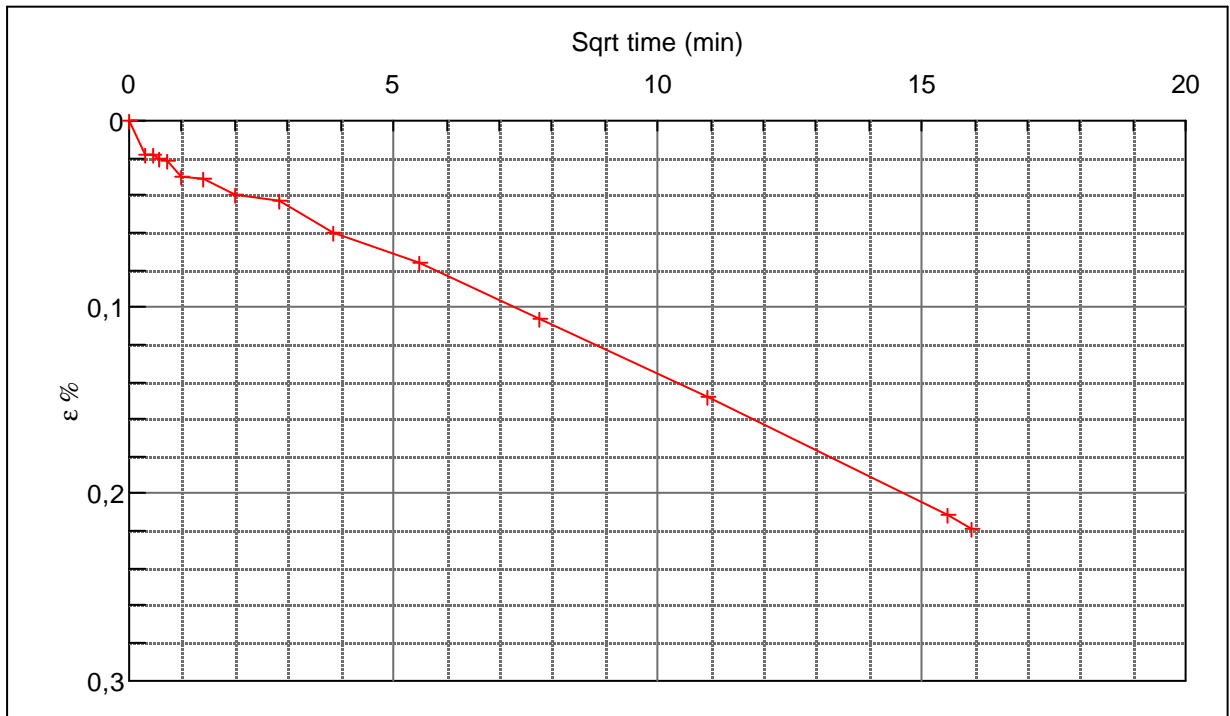
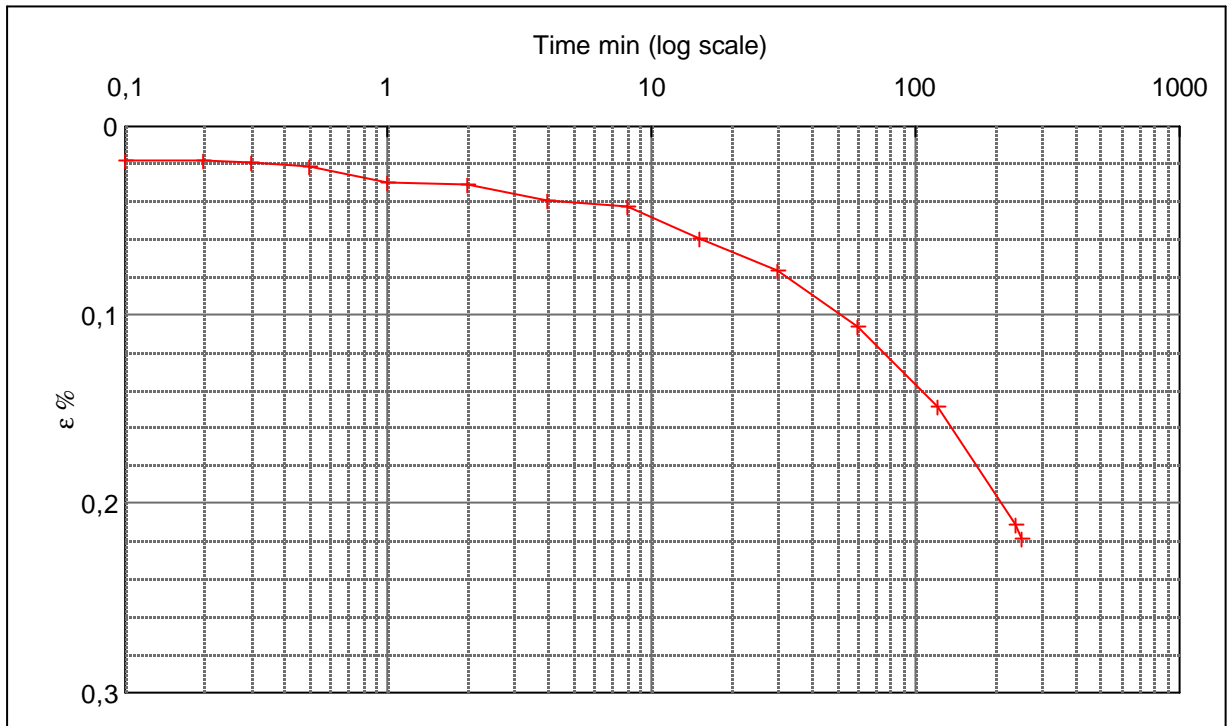
Job:
Nr. LyngbyAAU
Encl. No
10.2

Executed: AMS/gt

Check:

Approved:

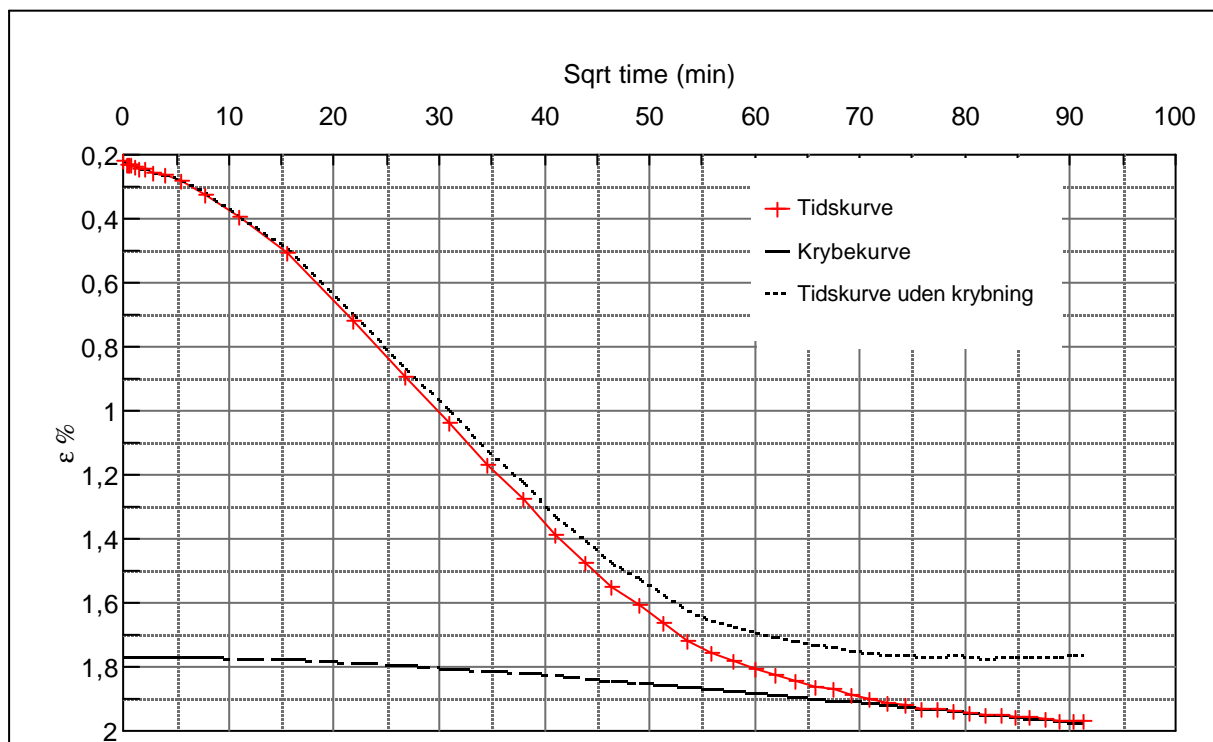
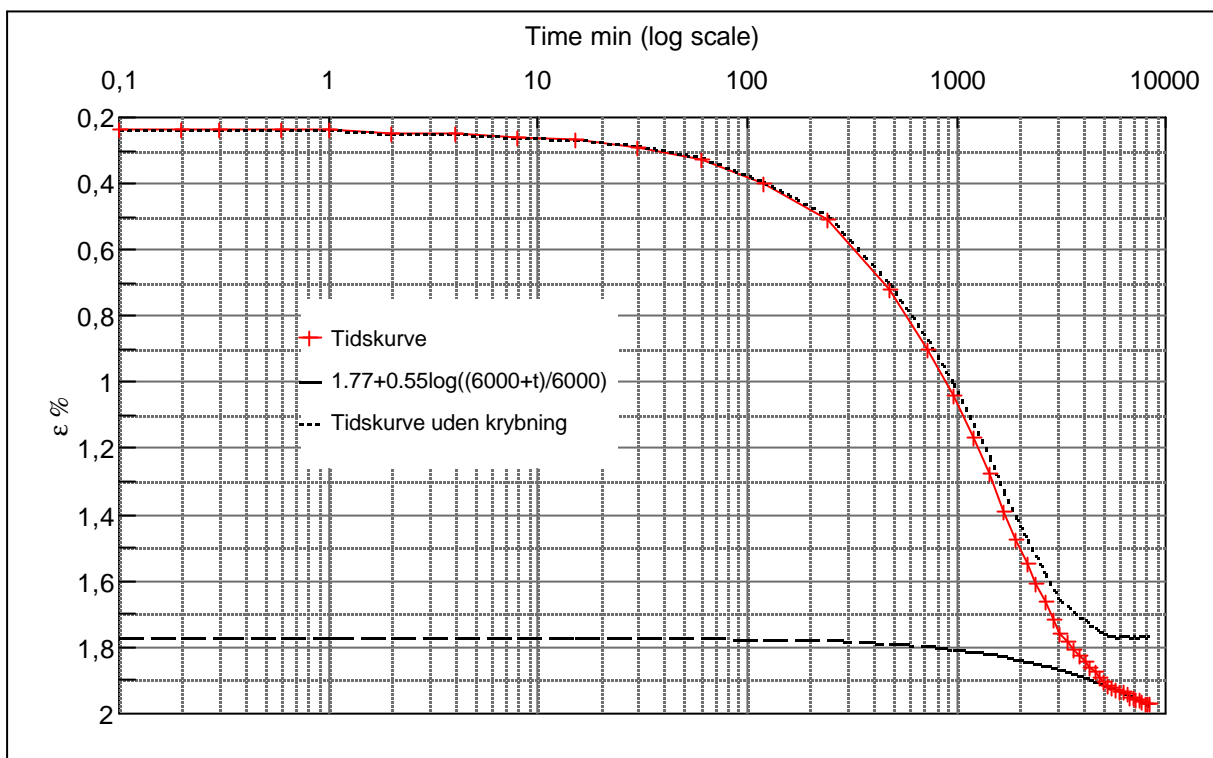
Step no 1	σ	kPa	ϵ	%	ϵ_i		tc in sec	24000
	Before	2,43	ϵ_0	0,00	ϵ_c %	0,22	K i kPa	3.979
	After	11,10	$\epsilon_{\sim\#}$	0,22	ϵ_s		k10 m/sec	1,0E-10
					ϵ_{kyb}		ck10 m ² /sec	4,04E-08



Material: Clay, marine, Lateglacial		
Bor no :	3	Depth: 2.5 m.b.s
Lab. no:	K2	Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU	
	Encl. No	10.3
Executed:	AMS/gt	Check:
Approved:		

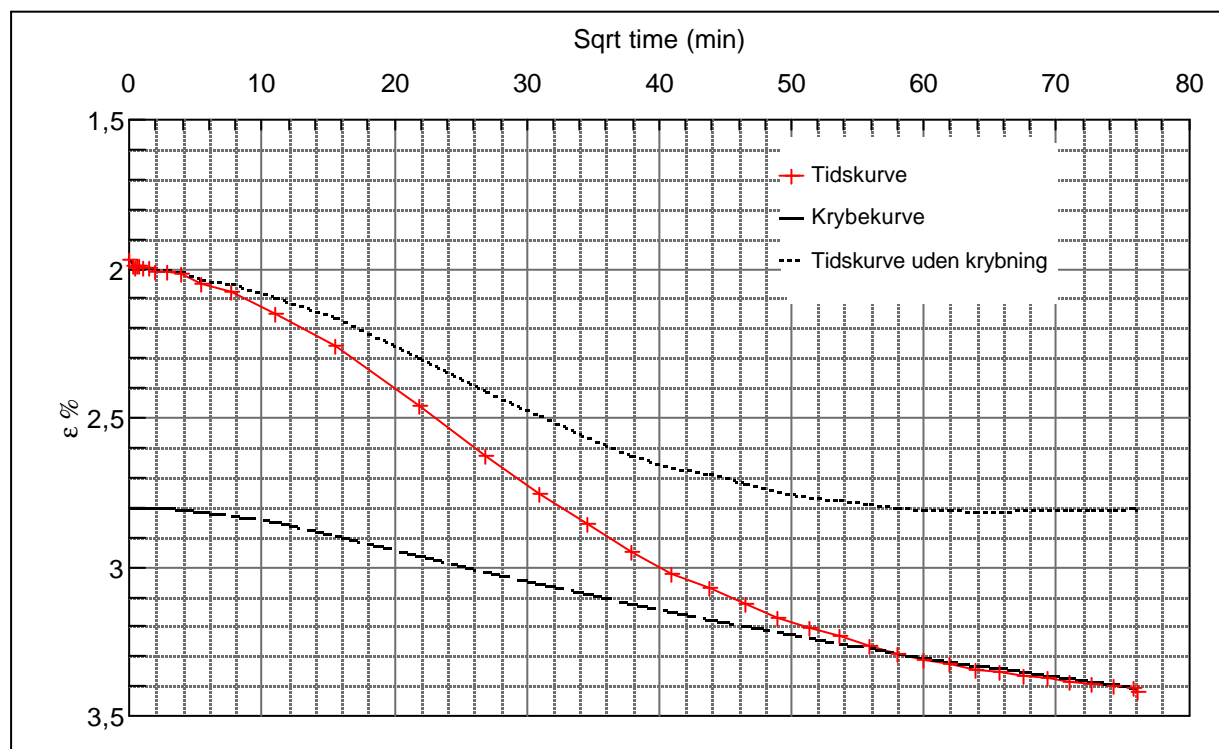
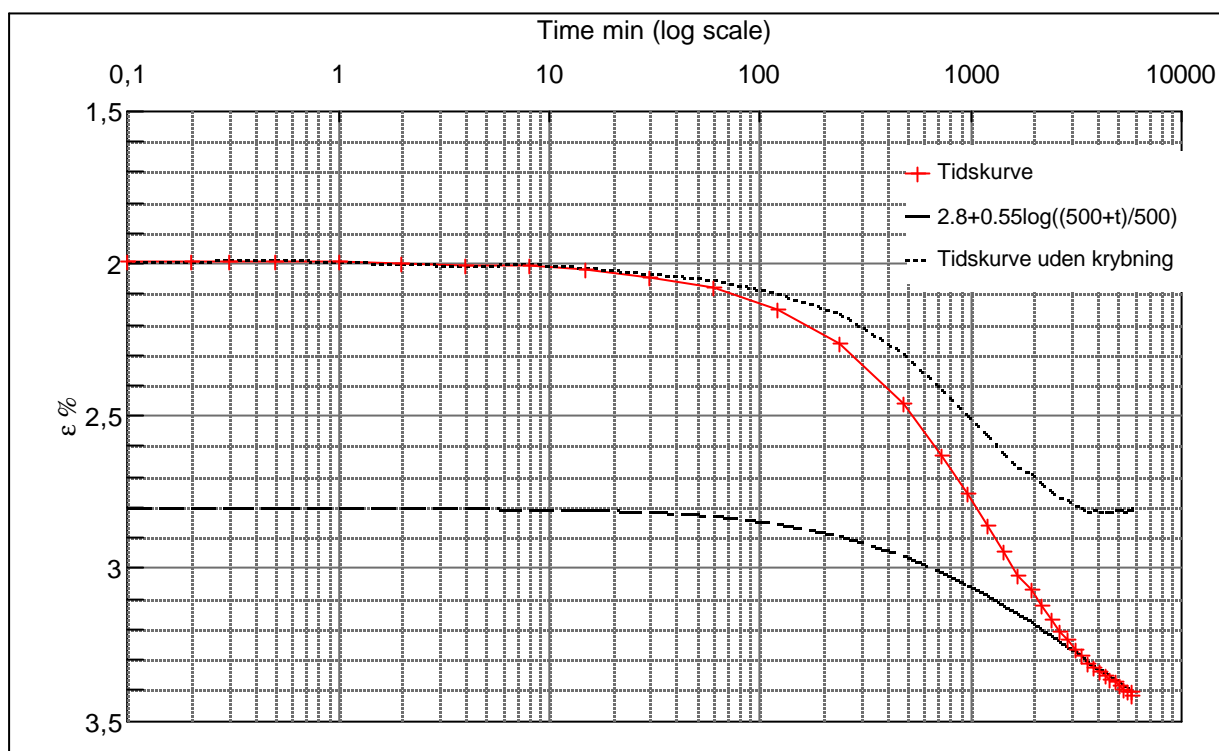
Step no	σ	kPa	ε	%	ε_i	tc in sec	162240
2	Before	11,1	ε_0	0,22	ε_c %	K i kPa	561
	After	19,8	$\varepsilon_{\sim\#}$	1,97	ε_s	k10 m/sec	1E-10
					ε_{kryb}	ck10 m^2/sec	5,98E-09



Material: Clay, marine, Lateglacial	
Bor no : 3	Depth: 2.5 m.b.s
Lab. no: K2	Insitu stress. 30 kPa

Job:	AAU
Nr. Lyngby	Encl. No 10.4
Executed: AMS/gt	Check:
Approved:	

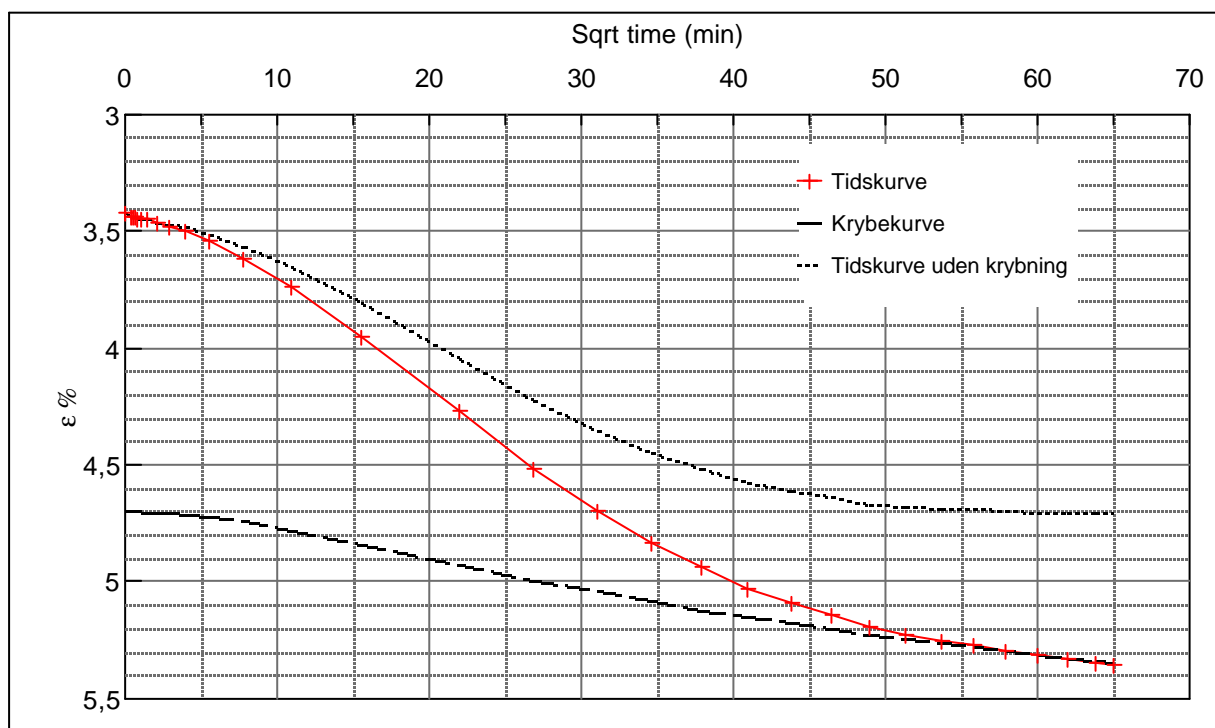
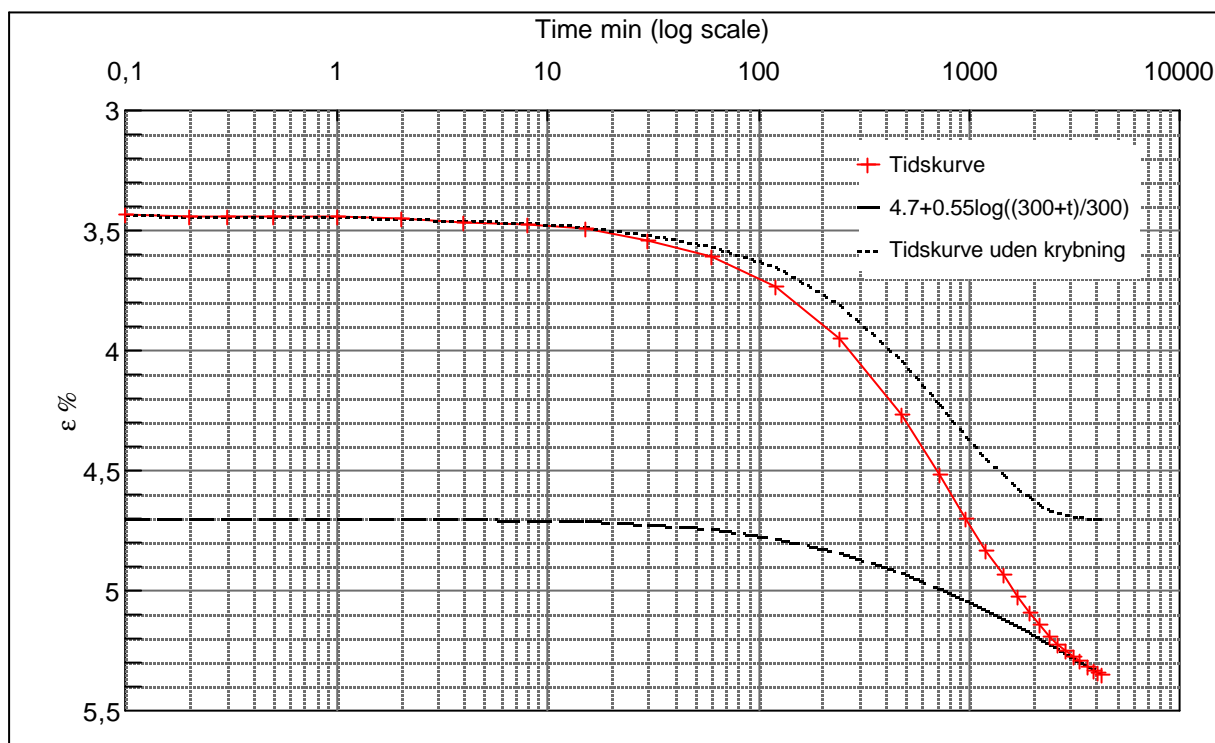
Step no 3	σ	kPa	ϵ	%	ϵ_i	tc in sec	65340
	Before	19,8	ϵ_0	1,97	ϵ_c %	K i kPa	2.094
	After	37,1	$\epsilon_{\sim\#}$	3,42	ϵ_s	k10 m/sec	7,0E-11
					ϵ_{kryb}	ck10 m ² /sec	1,48E-08



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 10.5
Executed:	AMS/gt	Check:
Approved:		

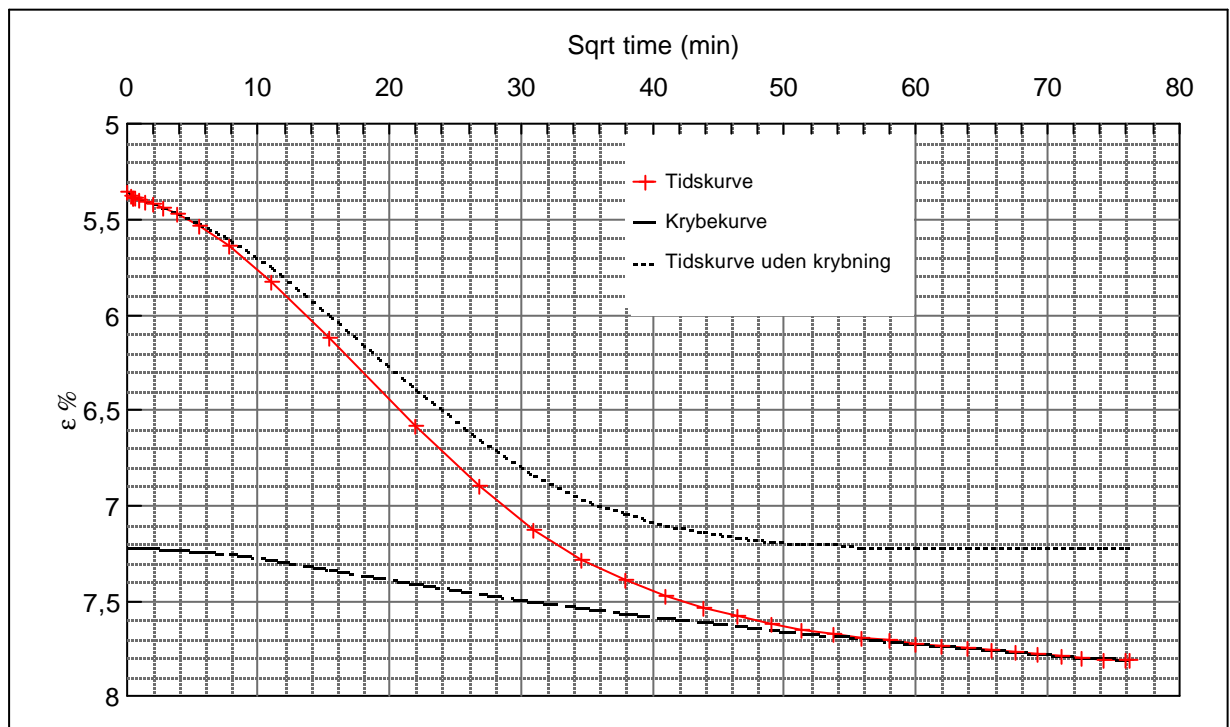
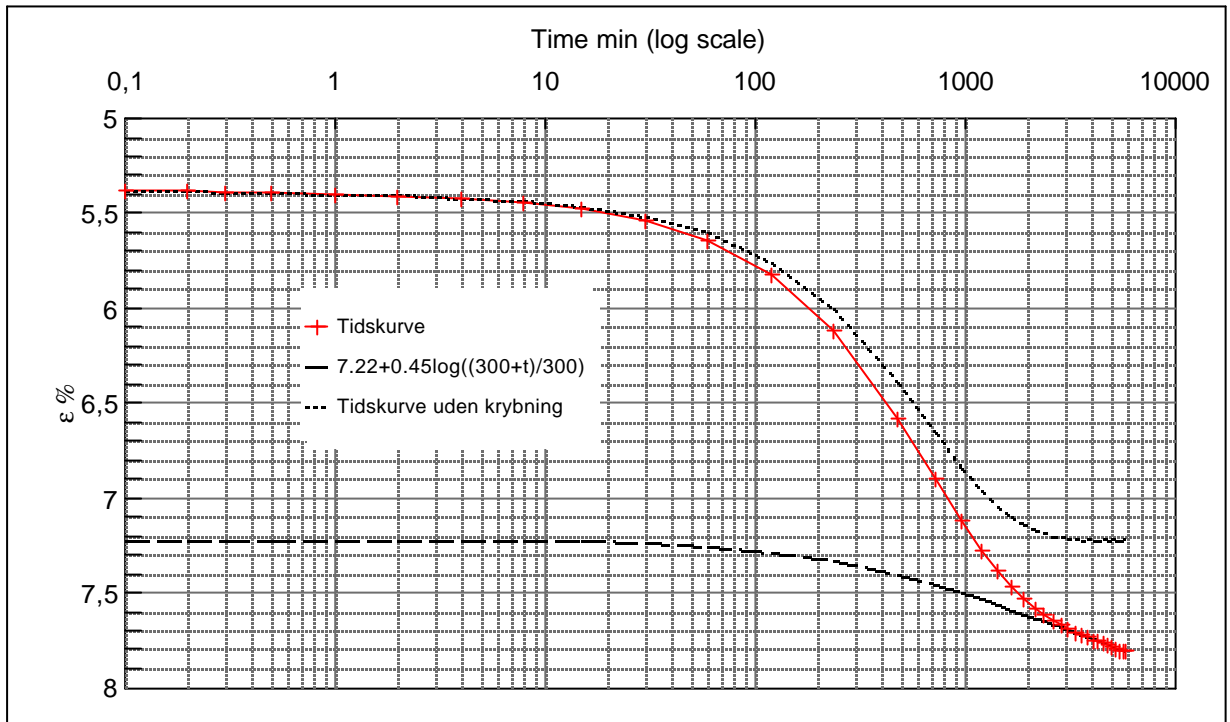
Step no 4	σ	kPa	ε	%	ε_i		tc in sec	54000
	Before	37,1	ε_0	3,42	ε_c %	4,7	K i kPa	2.714
	After	71,8	$\varepsilon_{-#}$	5,35	ε_s	0,55	k10 m/sec	6,5E-11
					ε_{kryb}	0,65	ck10 m ² /sec	1,80E-08



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 10.6
Executed:	AMS/gt	Check:
Approved:		

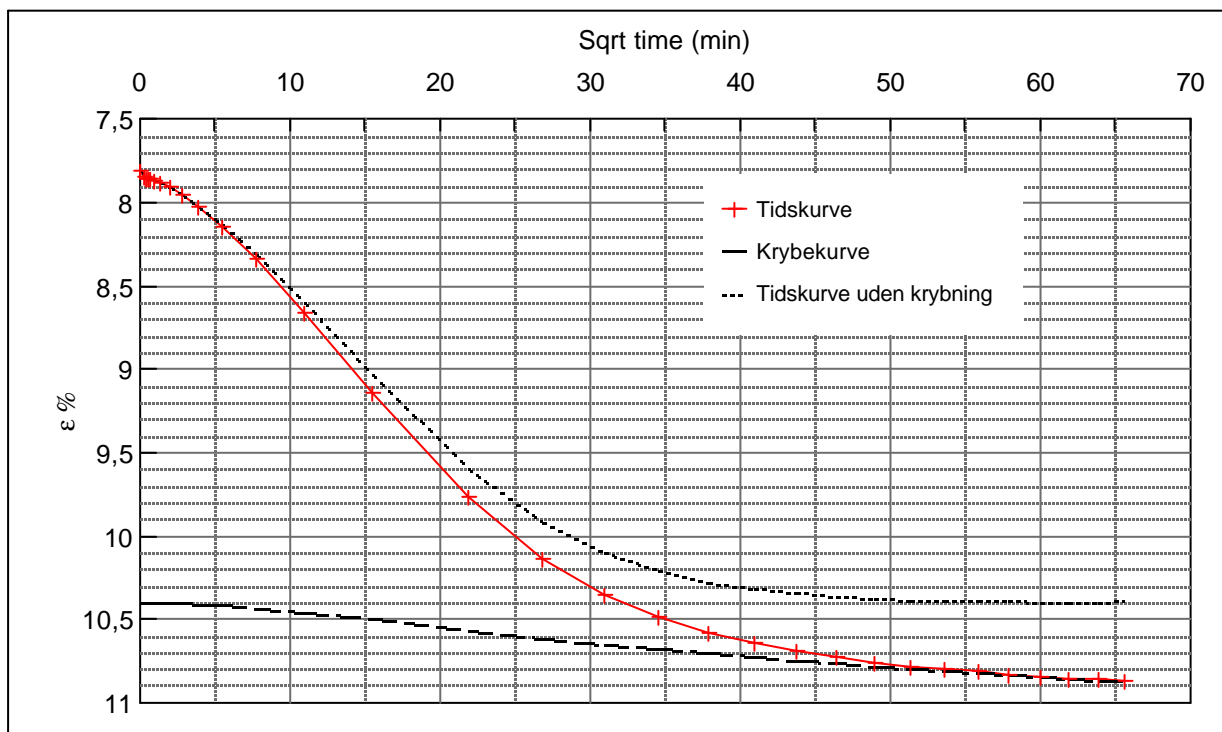
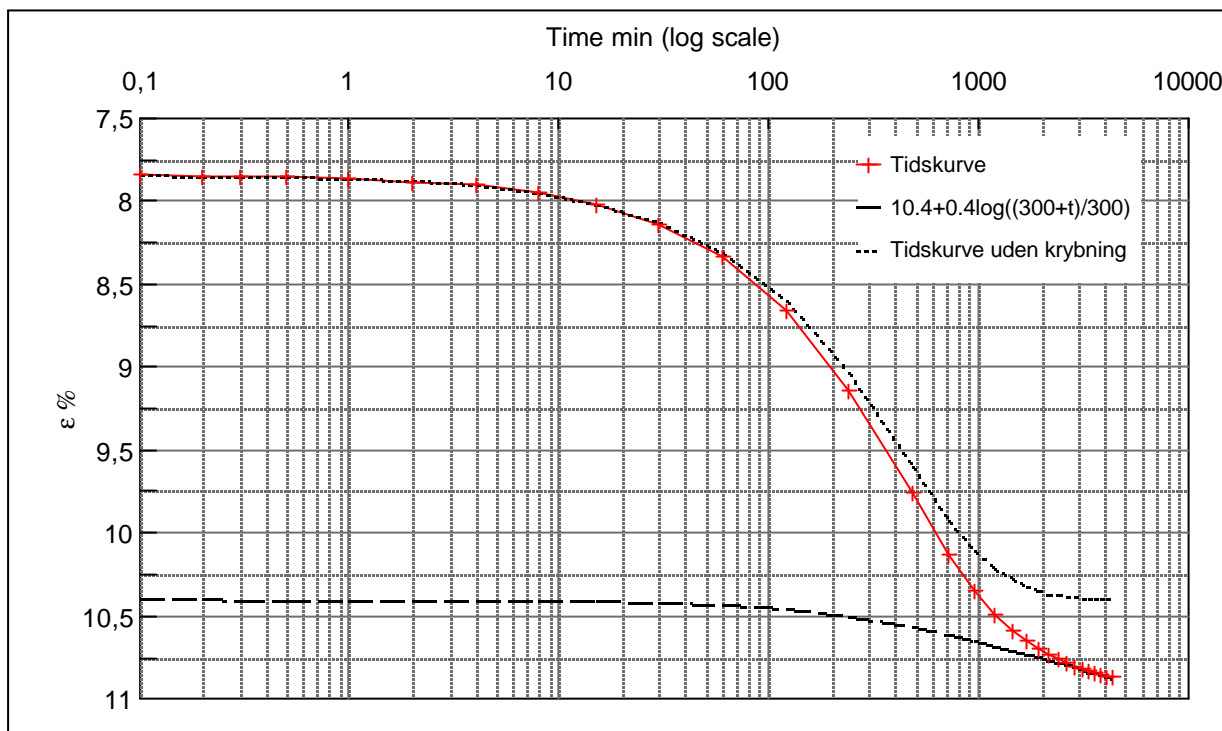
Step no 5	σ	kPa	ϵ	%	ϵ_i	tc in sec	57660
	Before	71,8	ϵ_0	5,35	ϵ_c %	K i kPa	3.714
	After	141,2	$\epsilon_{\sim\#}$	7,81	ϵ_s	k10 m/sec	4,4E-11
					ϵ_{kryb}	ck10 m ² /sec	1,68E-08



Material: Clay, marine, Lateglacial		
Bor no :	3	Depth: 2.5 m.b.s
Lab. no:	K2	Insitu stress. 30 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 10.7
Approved:		Check:

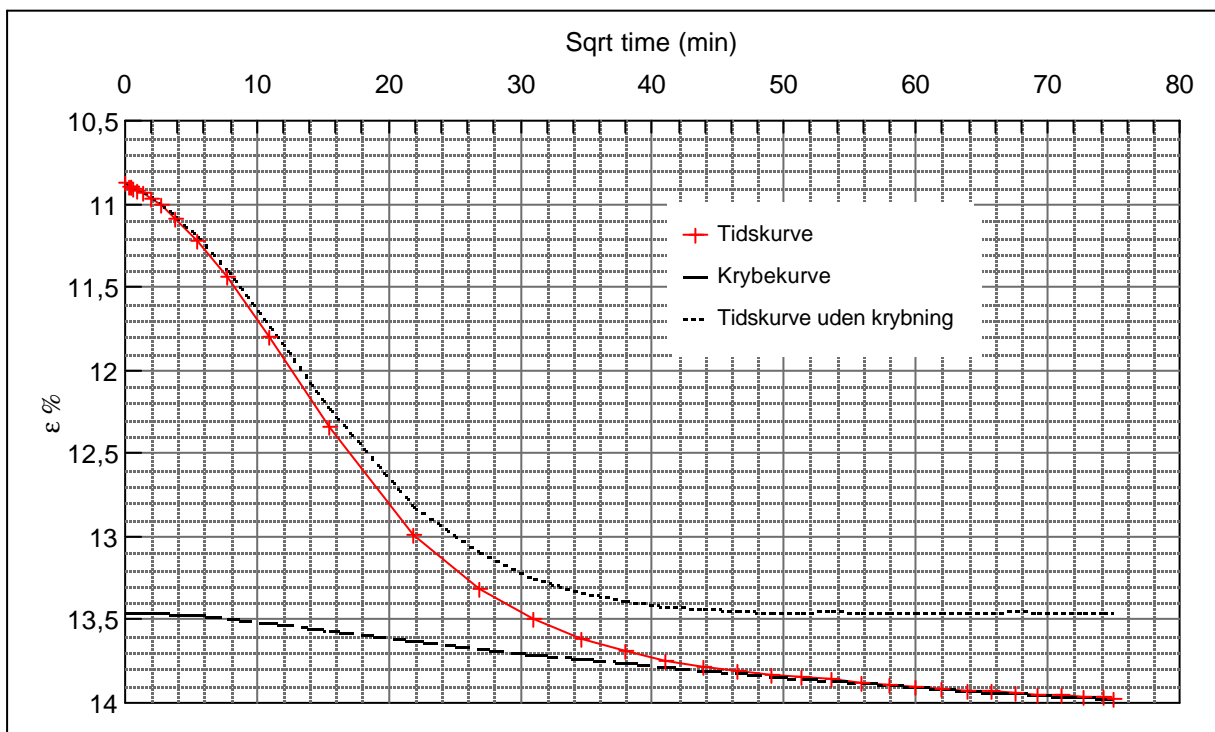
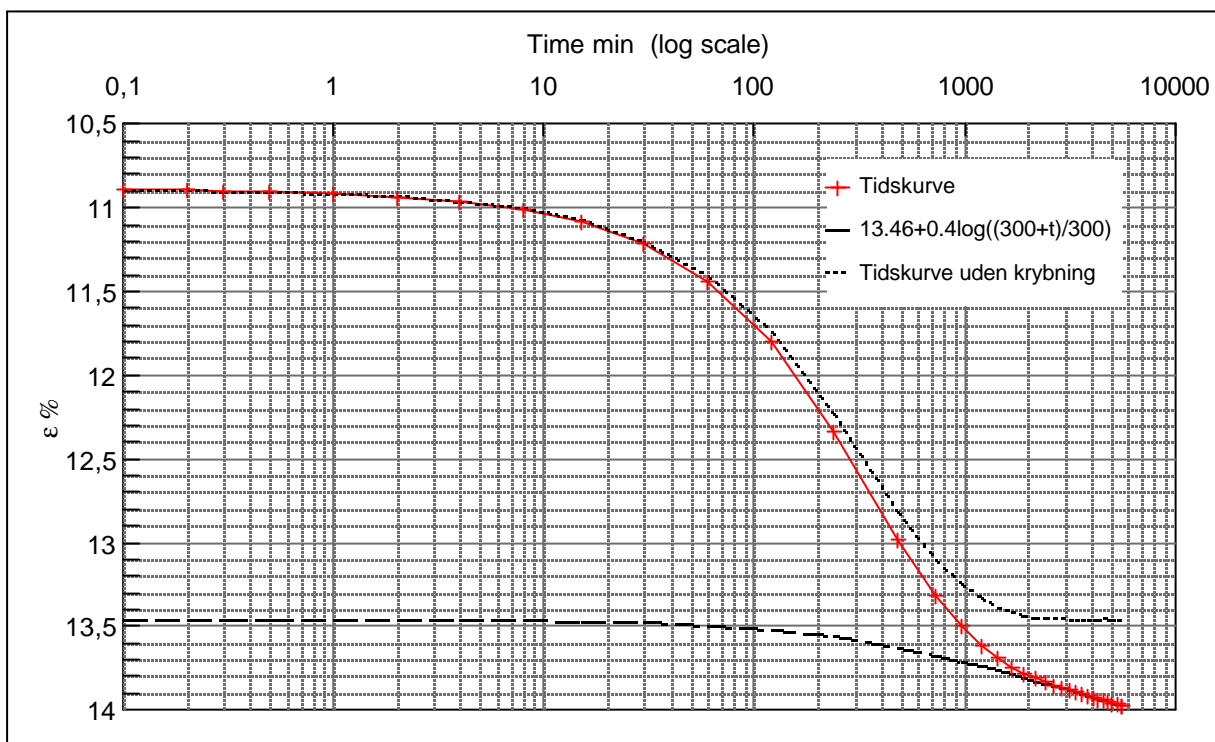
Step no 6	σ	kPa	ε	%	ε_i	tc in sec	47040
	Before	141,2	ε_0	7,81	ε_c %	K i kPa	6.698
	After	314,7	$\varepsilon_{-#}$	10,87	ε_s	k10 m/sec	3,0E-11
					ε_{kryb}	ck10 m ² /sec	2,06E-08



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 10.8
Executed:	AMS/gt	Check:
Approved:		

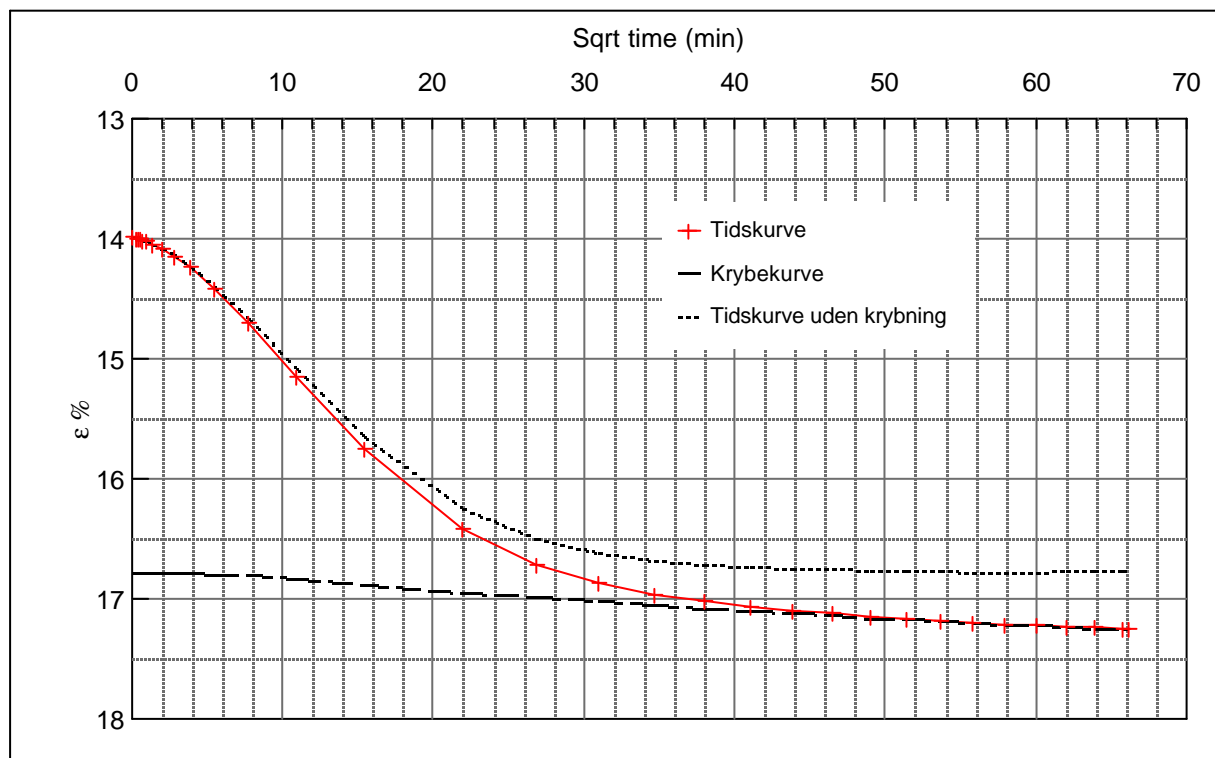
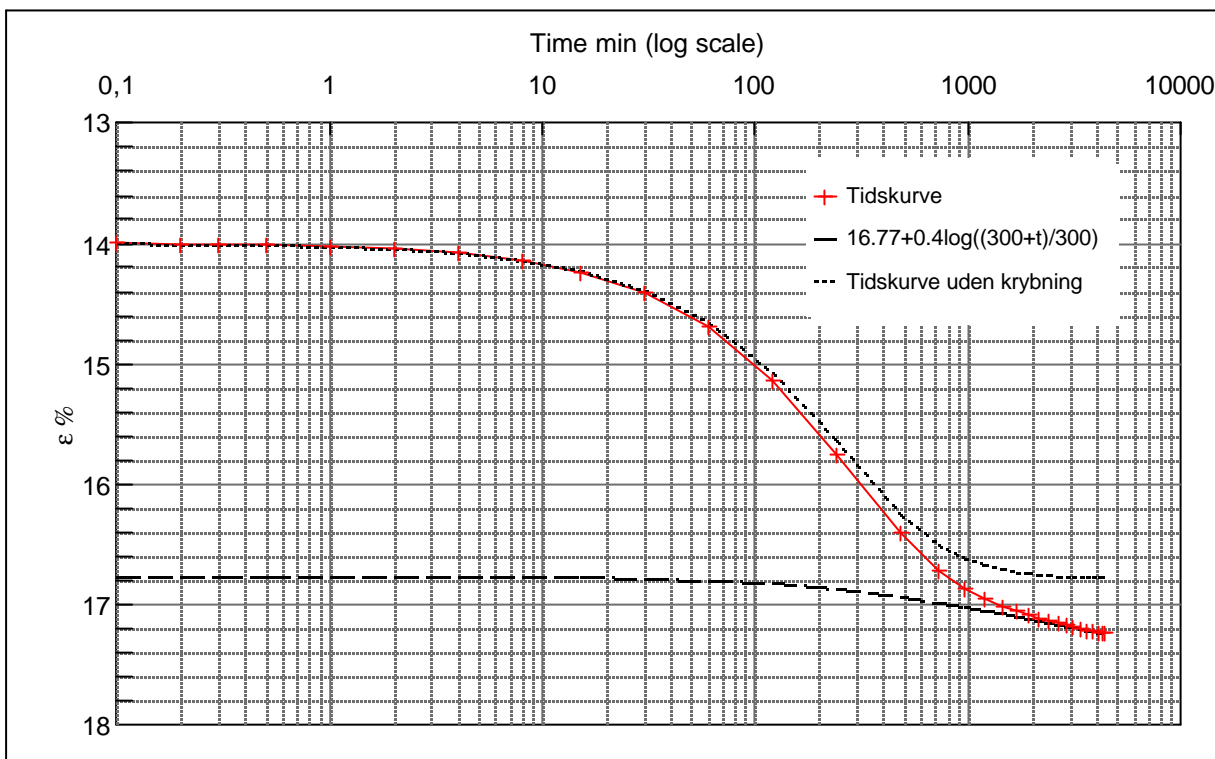
Step no 7	σ	kPa	ε	%	ε_i		tc in sec	37500
	Before	314,7	ε_0	10,87	ε_c %	13,46	K i kPa	13.396
	After	661,6	$\varepsilon_{-#}$	13,97	ε_s	0,4	k10 m/sec	1,9E-11
					ε_{kryb}	0,51	ck10 m ² /sec	2,58E-08



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 10.9
Executed:	AMS/gt	Check:
Approved:		

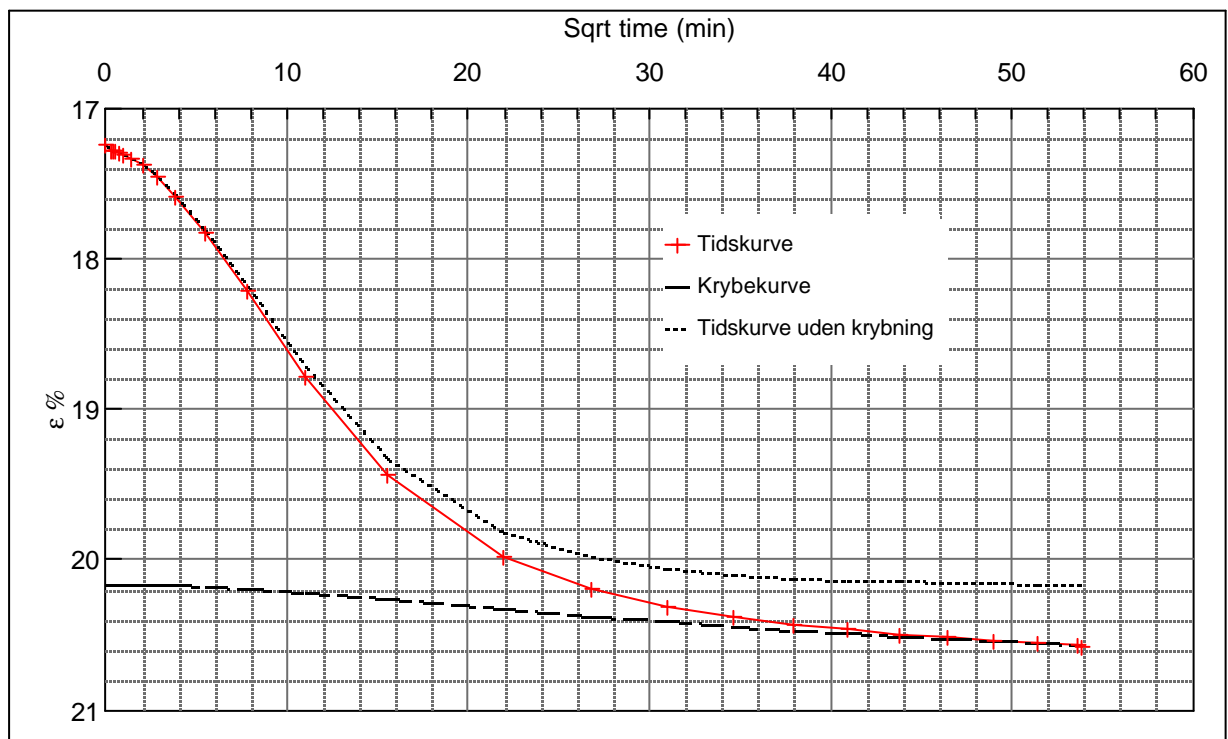
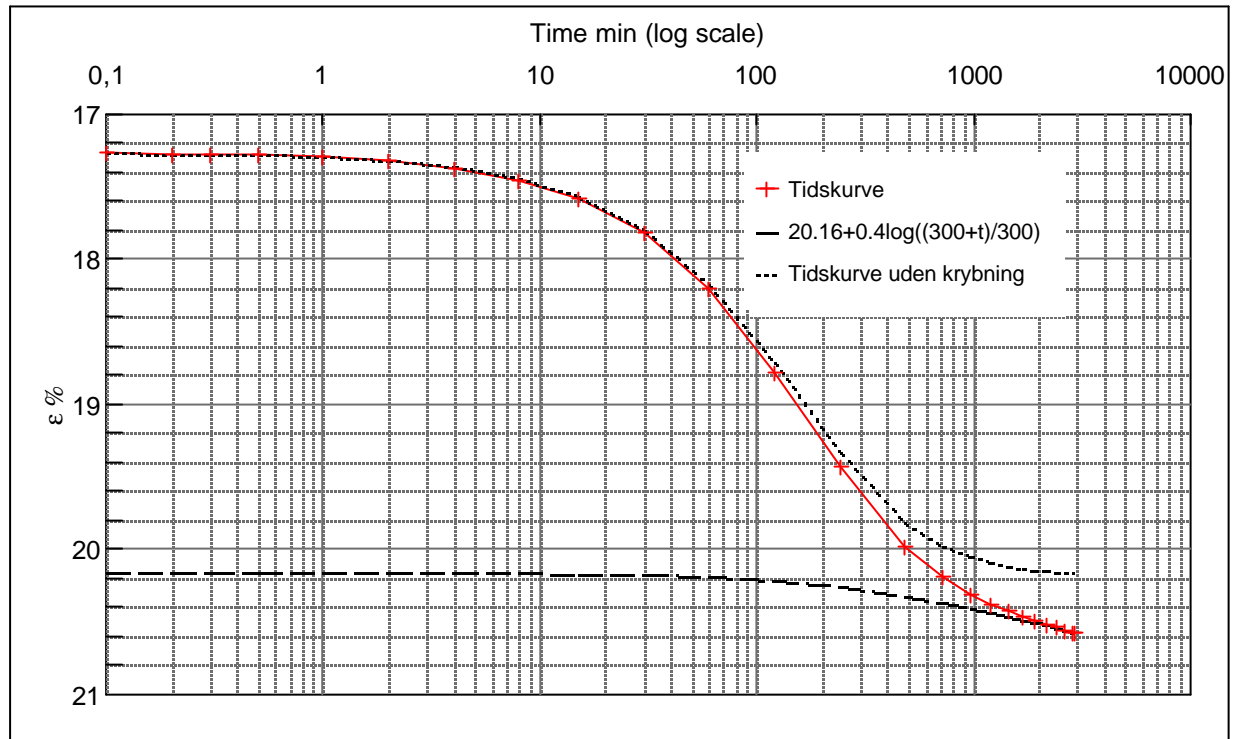
Step no 8	σ	kPa	ε	%	ε_i	tc in sec	34560
	Before	661,6	ε_0	13,98	ε_c %	K i kPa	24.886
	After	1.355,6	$\varepsilon_{-#}$	17,24	ε_s	k10 m/sec	1,1E-11
					ε_{kyb}	ck10 m^2 /sec	2,81E-08



Material: Clay, marine, Lateglacial	
Bor no : 3	Depth: 2.5 m.b.s
Lab. no: K2	Insitu stress. 30 kPa

Job: Nr. Lyngby	AAU
	Encl. No 10.10
Executed: AMS/gt	Check:
Approved:	

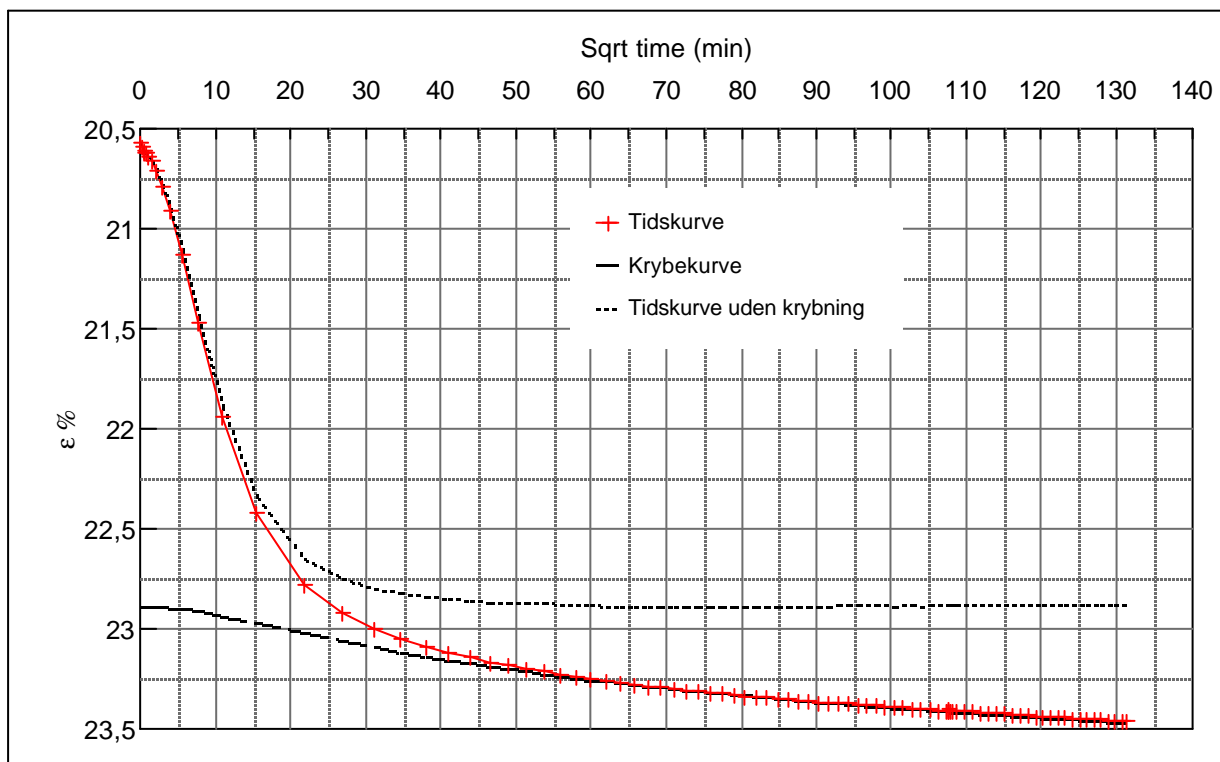
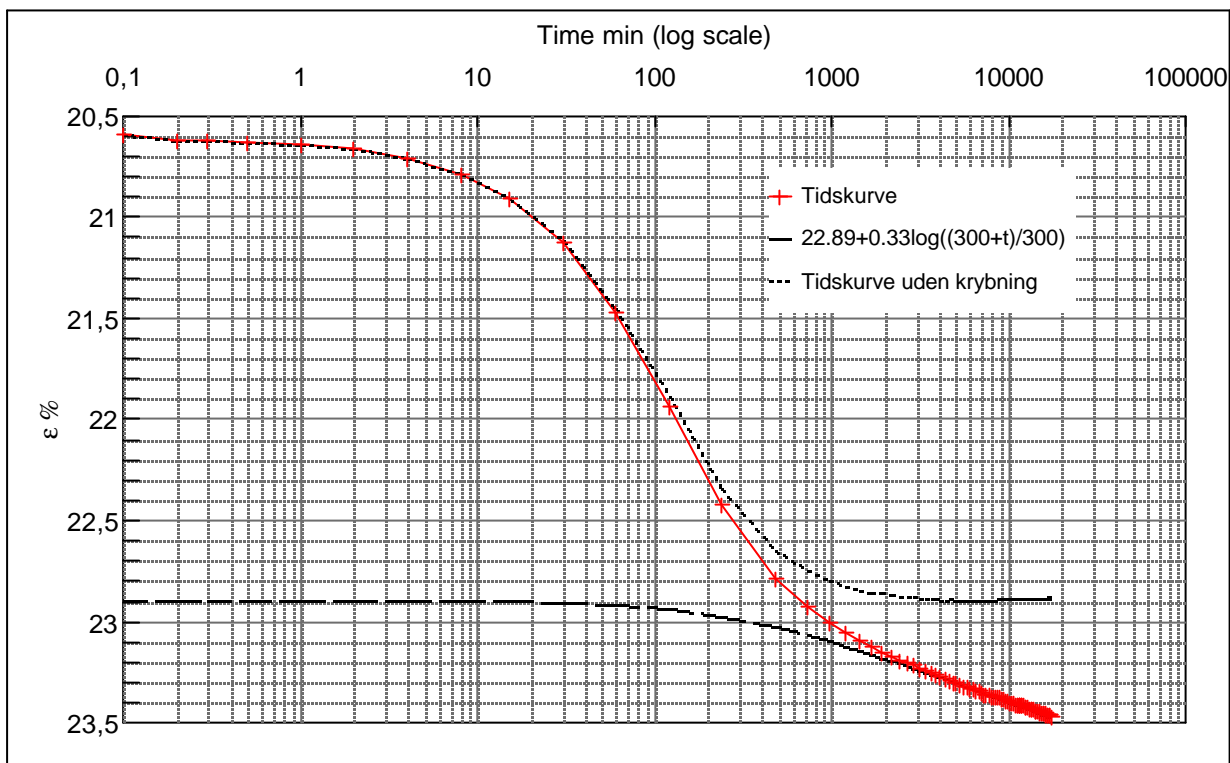
Step no 9	σ	kPa	ε	%	ε_i	tc in sec	21660
	Before	1.355,6	ε_0	17,24	ε_c %	K i kPa	47.528
	After	2.743,4	$\varepsilon_{-#}$	20,57	ε_s	k10 m/sec	9,2E-12
					ε_{kryb}	ck10 m ² /sec	4,48E-08



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 10.11
Executed:	AMS/gt	Check:
Approved:		

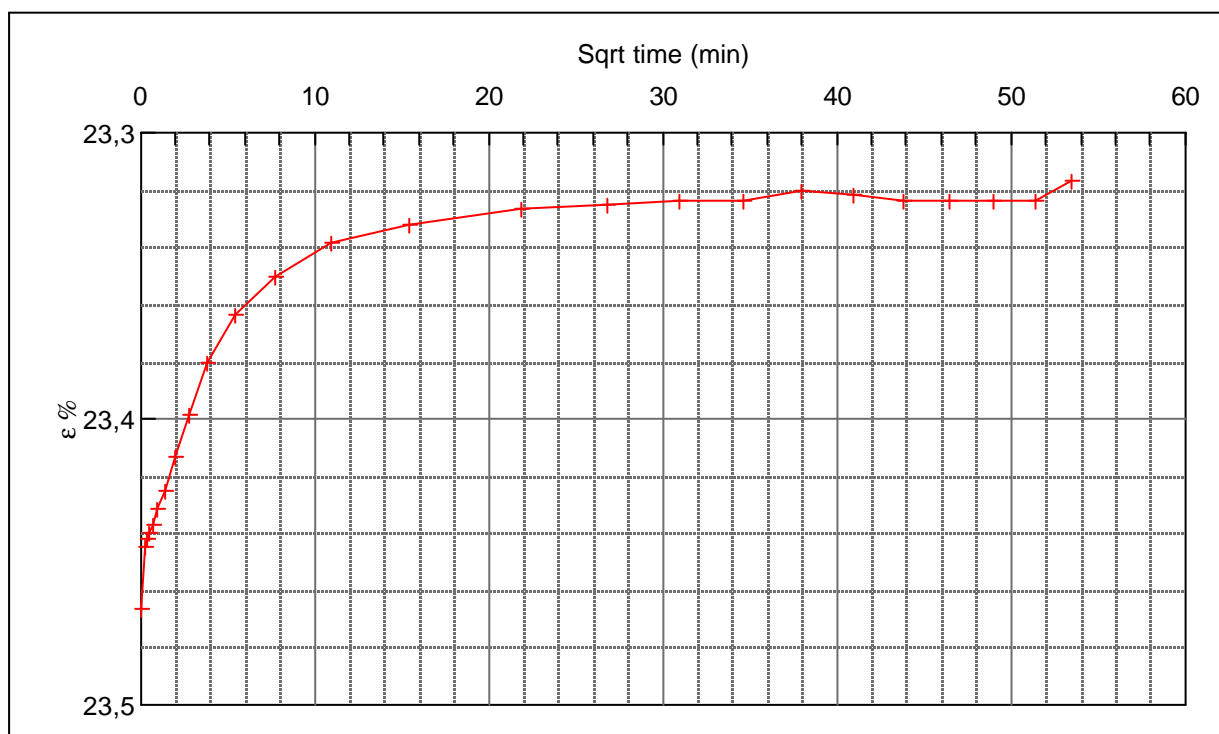
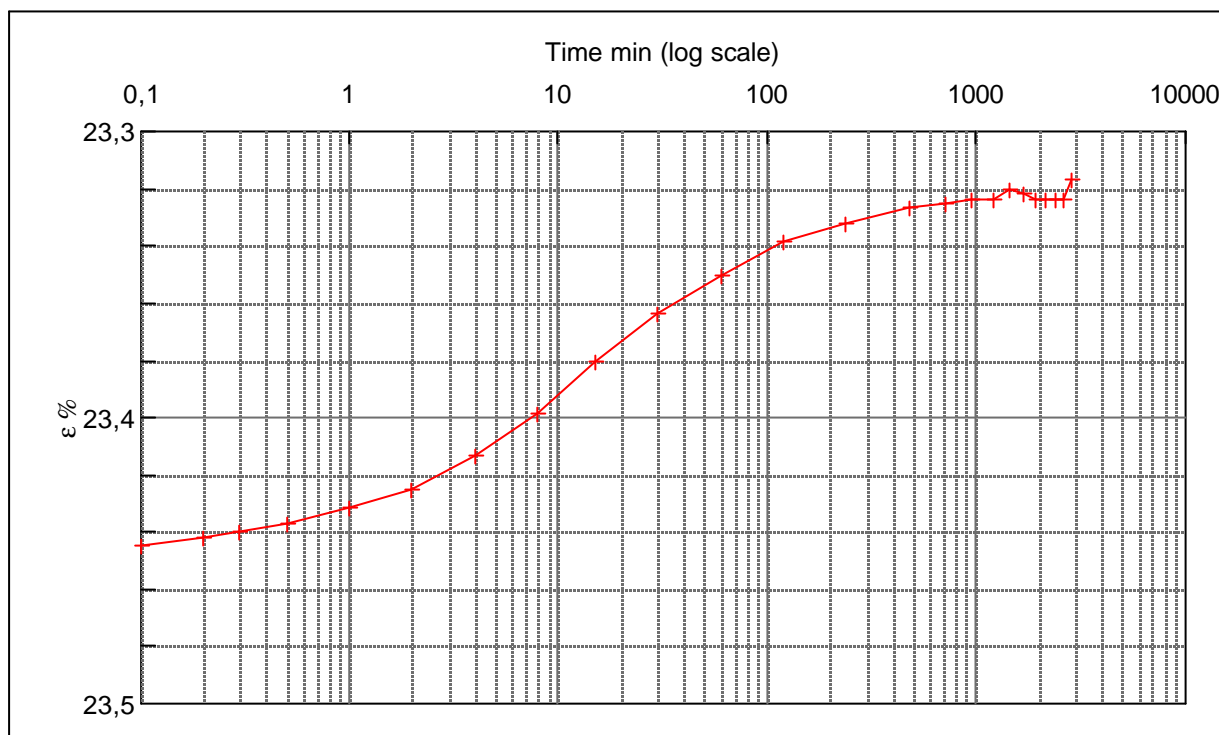
Step no 10	σ	kPa	ε	%	ε_i	tc in sec	19440
	Before	2.743,4	ε_0	20,57	ε_c %	K i kPa	89.860
	After	4.825,1	$\varepsilon_{-#}$	23,47	ε_s	k10 m/sec	5,4E-12
					ε_{kyb}	0,58	ck10 m ² /sec 4,99E-08



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 10.12
Executed:	AMS/gt	Check:
Approved:		

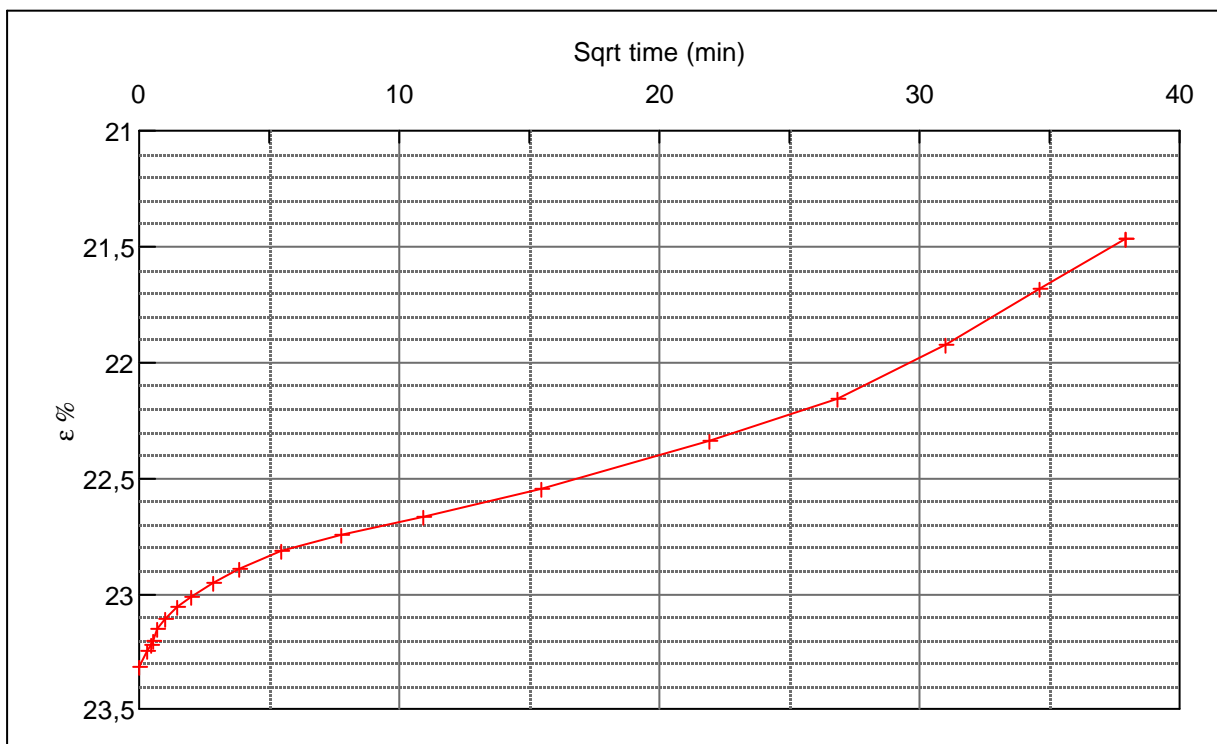
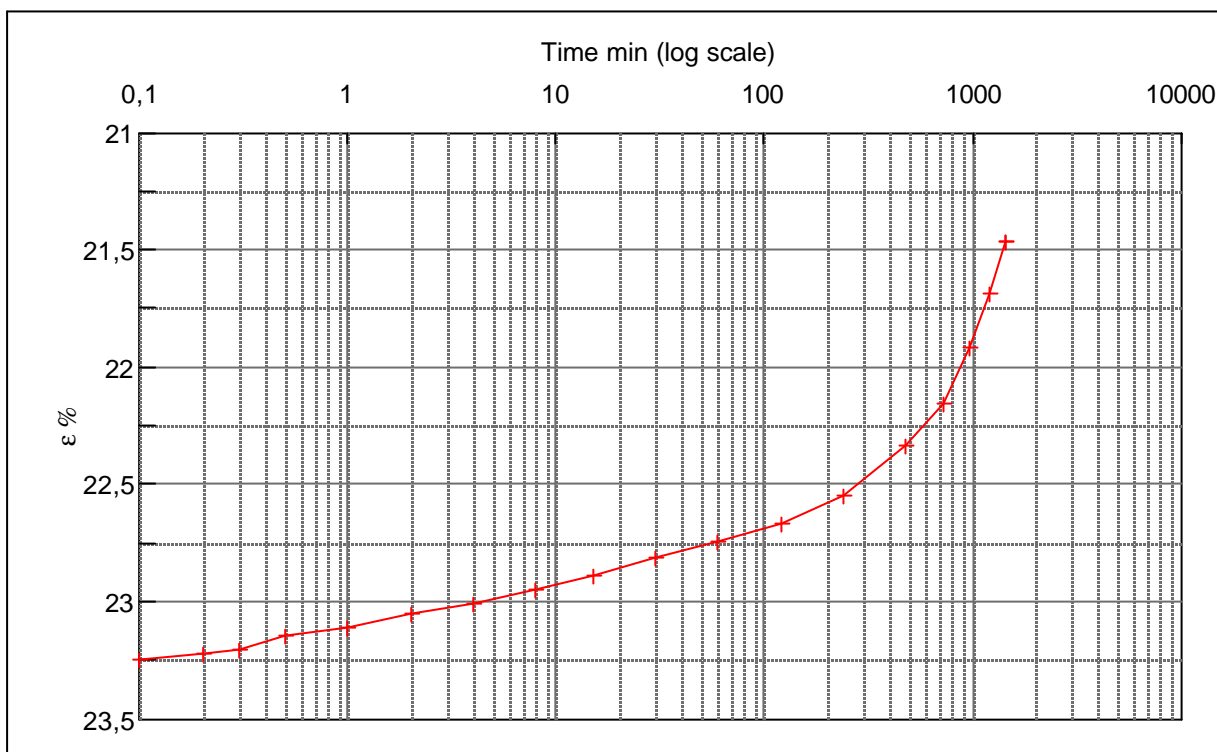
Step no 11	σ	kPa	ϵ	%	ϵ_i		tc in sec	3375
	Before	4.825,1	ϵ_0	23,47	ϵ_c %	23,32	K i kPa	1.390.922
	After	2.743,4	$\epsilon_{-#}$	23,32	ϵ_s		k10 m/sec	2,0E-12
					ϵ_{kryb}		ck10 m ² /sec	2,87E-07



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job:		AAU
Nr. Lyngby		Encl. No 10.13
Executed:	AMS/gt	Check:
Approved:		

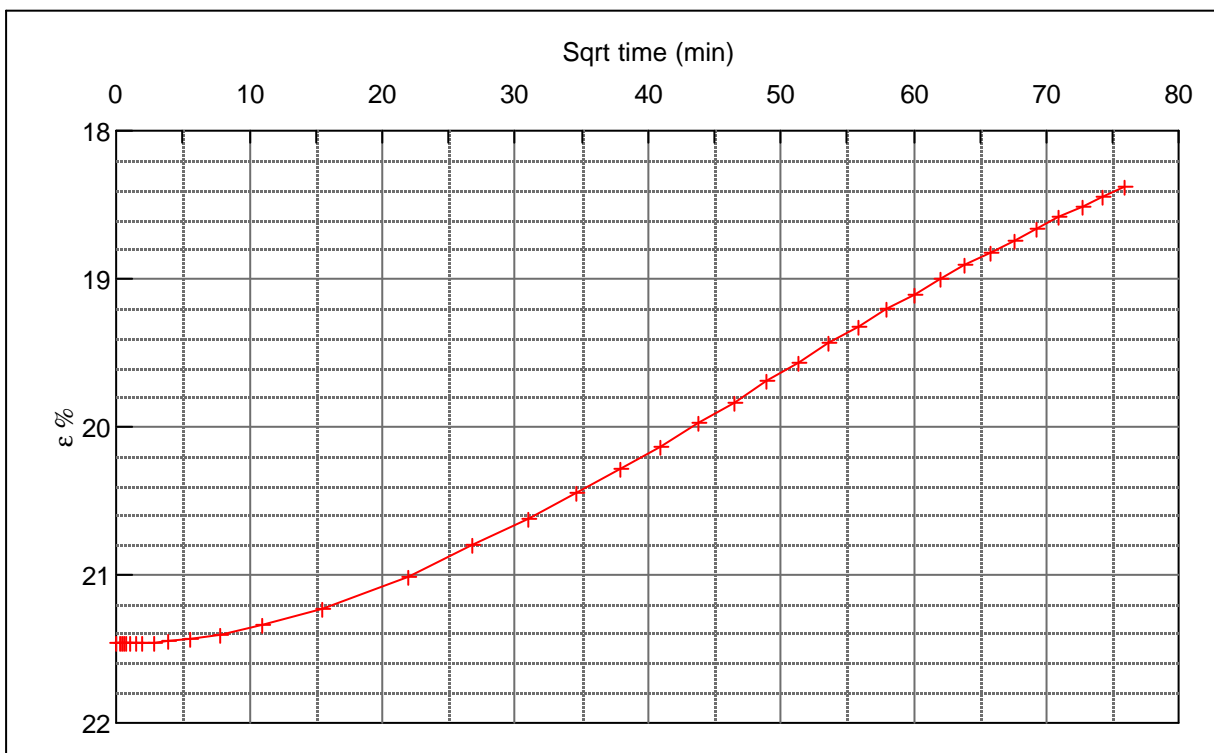
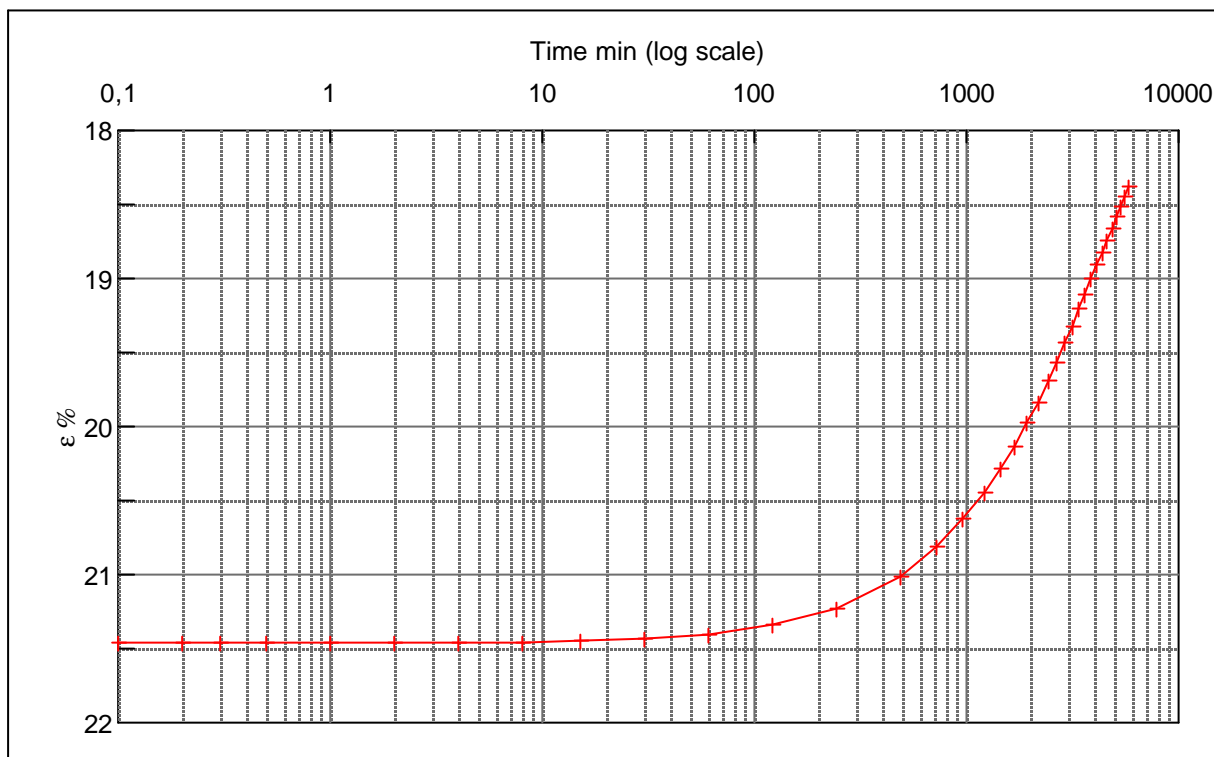
Step no 12	σ	kPa	ϵ	%	ϵ_i	tc in sec 96000	
	Before	2.743,4	ϵ_0	23,32	ϵ_c % 21,47	K i kPa	146.311
	After	37,1	$\epsilon_{\sim\#}$	21,47	ϵ_s	k10 m/sec	6,8E-13
					ϵ_{kryb}	ck10 m ² /sec	1,01E-08



Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

Job: Nr. Lyngby		AAU
Executed:		AMS/gt
Approved:		Encl. No 10.14
		Check:

Step no 13	σ	kPa	ε	%	ε_i	tc in sec	337500
	Before	37,12	ε_0	21,47	ε_c %	K i kPa	1.120
	After	2,43	$\varepsilon_{-#}$	18,37	ε_s	k10 m/sec	2,5E-11
					ε_{kyb}	ck10 m^2 /sec	2,87E-09

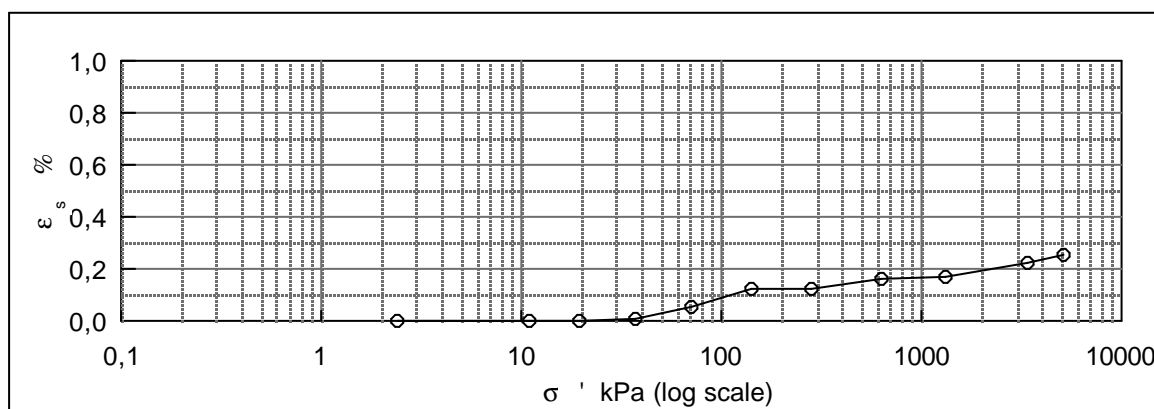
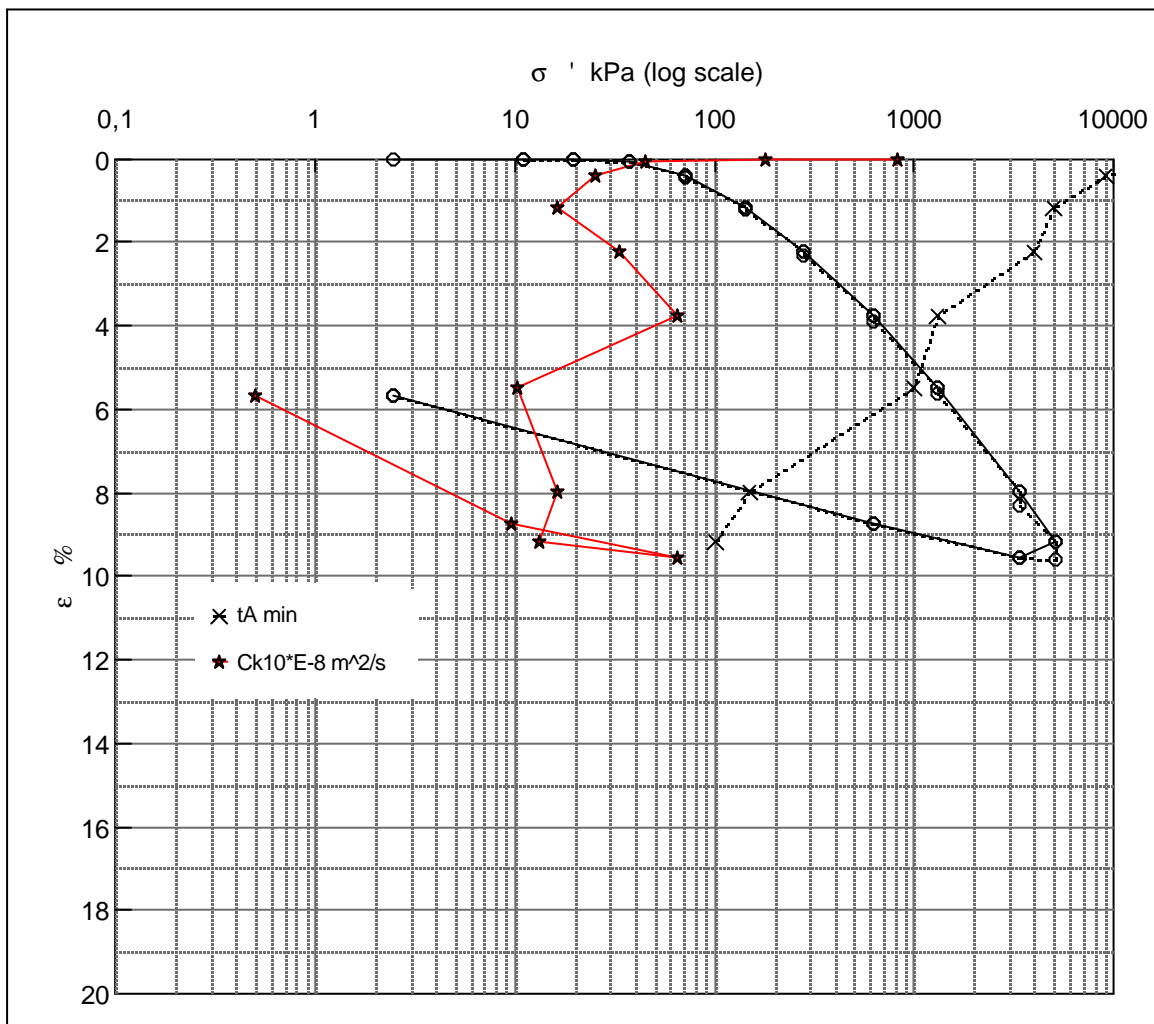


Material: Clay, marine, Lateglacial			
Bor no :	3	Depth:	2.5 m.b.s
Lab. no:	K2	Insitu stress.	30 kPa

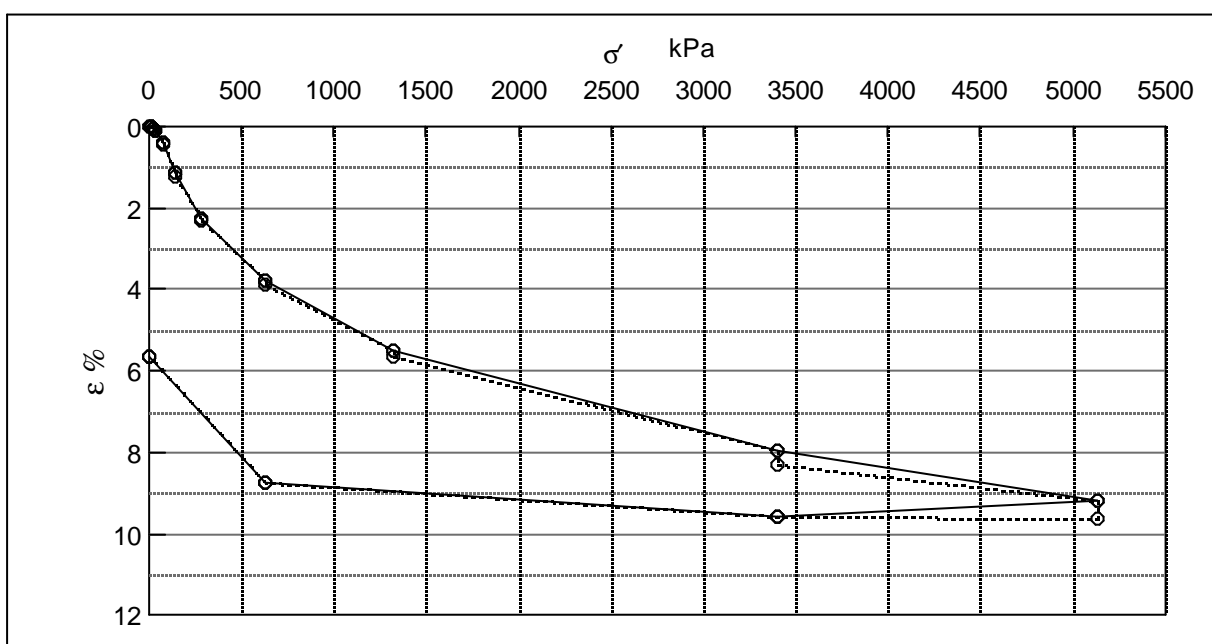
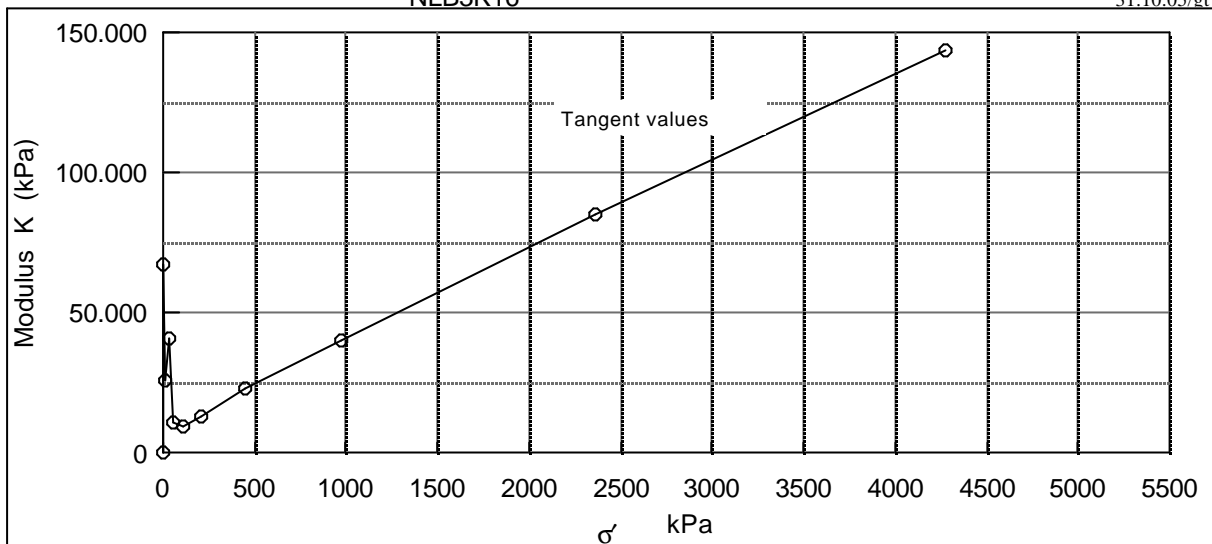
Job:		AAU
Nr. Lyngby		Encl. No 10.15
Executed:	AMS/gt	Check:
Approved:		

31.10.05/gt

Description of soil: Clay, Weichsel			Water content %	Before	After
			Bulk density Mg/m ³	2,11	2,20
			Grain density Mg/m ³	2,71	
Bor no : 3	Overburden pressure σ'_o	220 kPa	Void ratio	0,51	0,42
Lab. no: K 16	Vane strength c_v	>710 kPa	Degr. of Saturation %	93	100
Level : 22 m.b.s.	CPT - value q_c	MPa	Dimension H x D mm	30x60	28,3x60



Job: Nr. Lyngby		AAU
		Encl. No 11.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ kPa	ϵ_c %	ϵ_s % / lct	Ck10 m ² /s	σ_m kPa	K kPa	w %
Q	~6 % ?	2,4	0,00	-	-	-	-	-
Qs	0,25 %	11,1	0,01	0,00	8,2E-06	6,8	66722,6	18,6
σ_{pc}	~250 kPa?	19,8	0,05	0,00	1,8E-06	15,4	25511,6	18,6
		37,1	0,09	0,01	4,5E-07	28,5	40343,9	18,6
		71,8	0,41	0,05	2,5E-07	54,5	10842,4	18,4
		141,2	1,15	0,13	1,6E-07	106,5	9377,2	18,0
		280,0	2,24	0,12	3,3E-07	210,6	12732,4	17,4
		627,0	3,77	0,16	6,5E-07	453,5	22677,0	16,6
		1.320,9	5,50	0,17	1,0E-07	973,9	40110,7	15,6
		3.402,6	7,96	0,22	1,6E-07	2.361,7	84623,8	14,2
		5.137,4	9,17	0,25	1,3E-07	4.270,0	143371,0	13,6
		3.402,6	9,57	0,00	6,5E-07	4.270,0	-431539,5	13,3
		627,0	8,73	0,00	9,6E-08	2.014,8	330829,8	13,8
		2,4	5,67	0,00	5,0E-09	314,7	20409,3	15,5

Remark:
Forbelastningsspændingen er måske kun lige nået?
eller = ~250 kPa

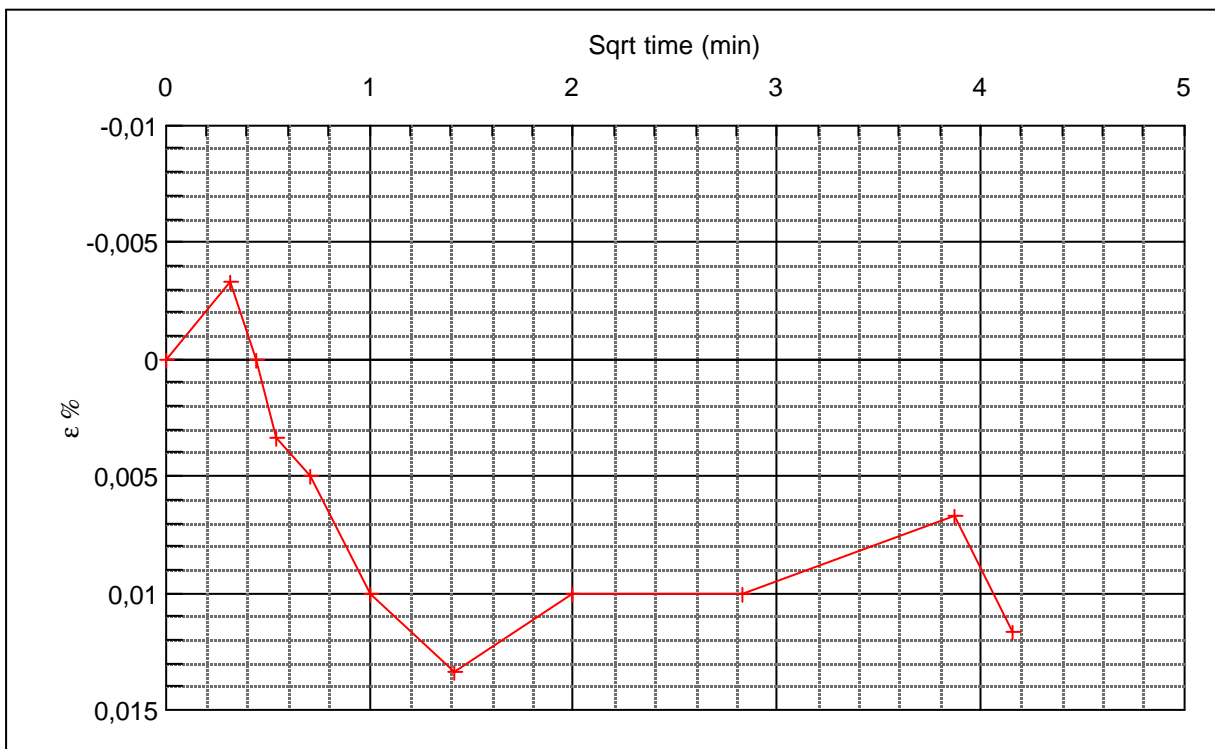
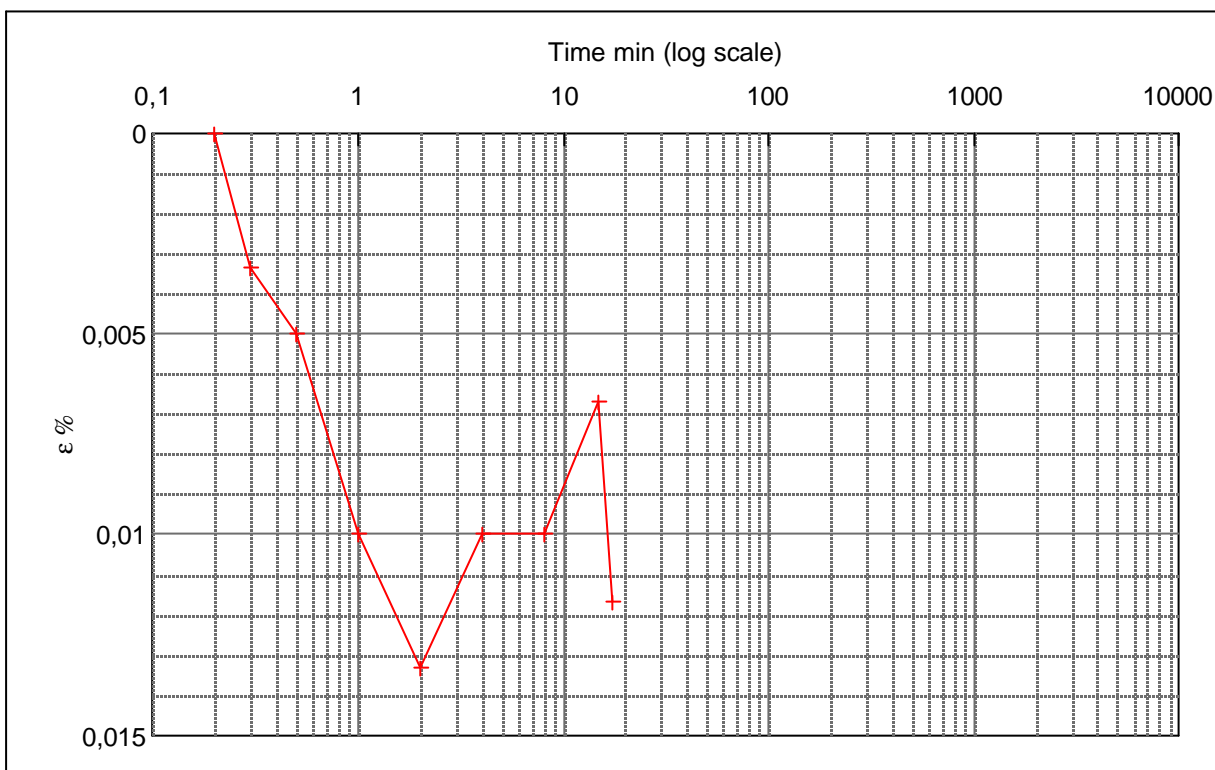
Job:
Nr. Lyngby

Executed: AMS/gt

Approved:

AAU
Encl. No
11.2
Check:

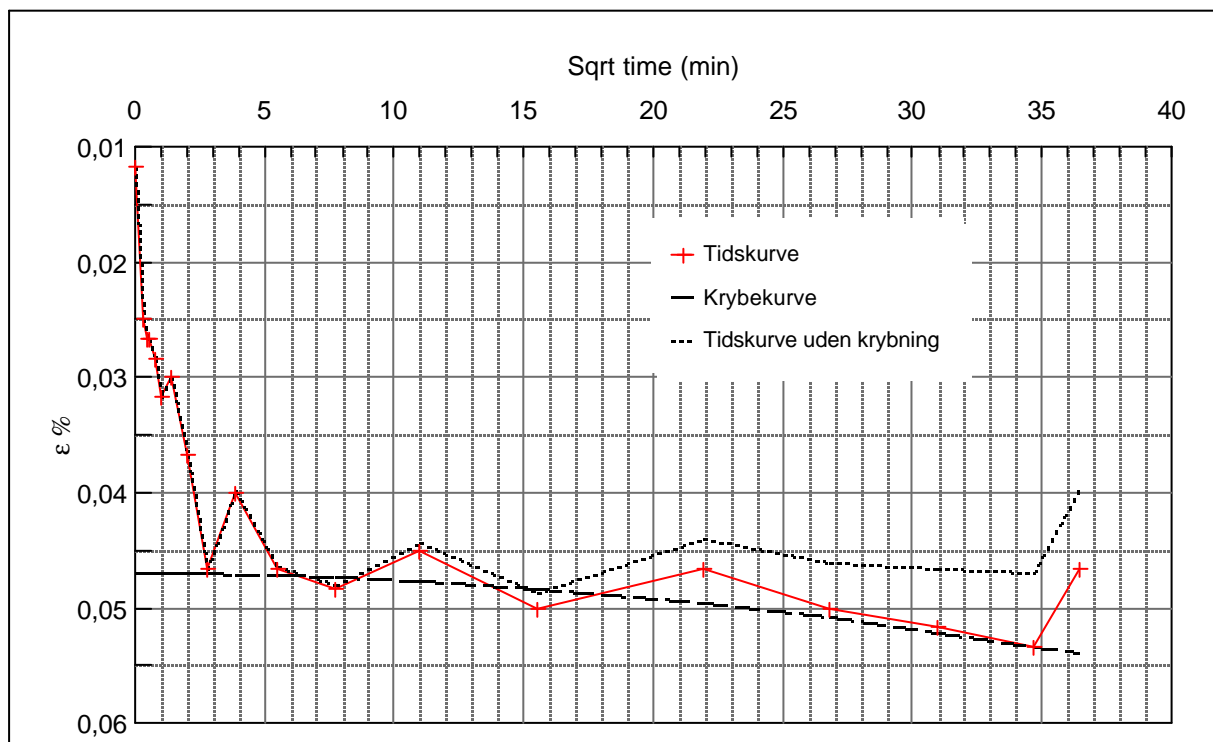
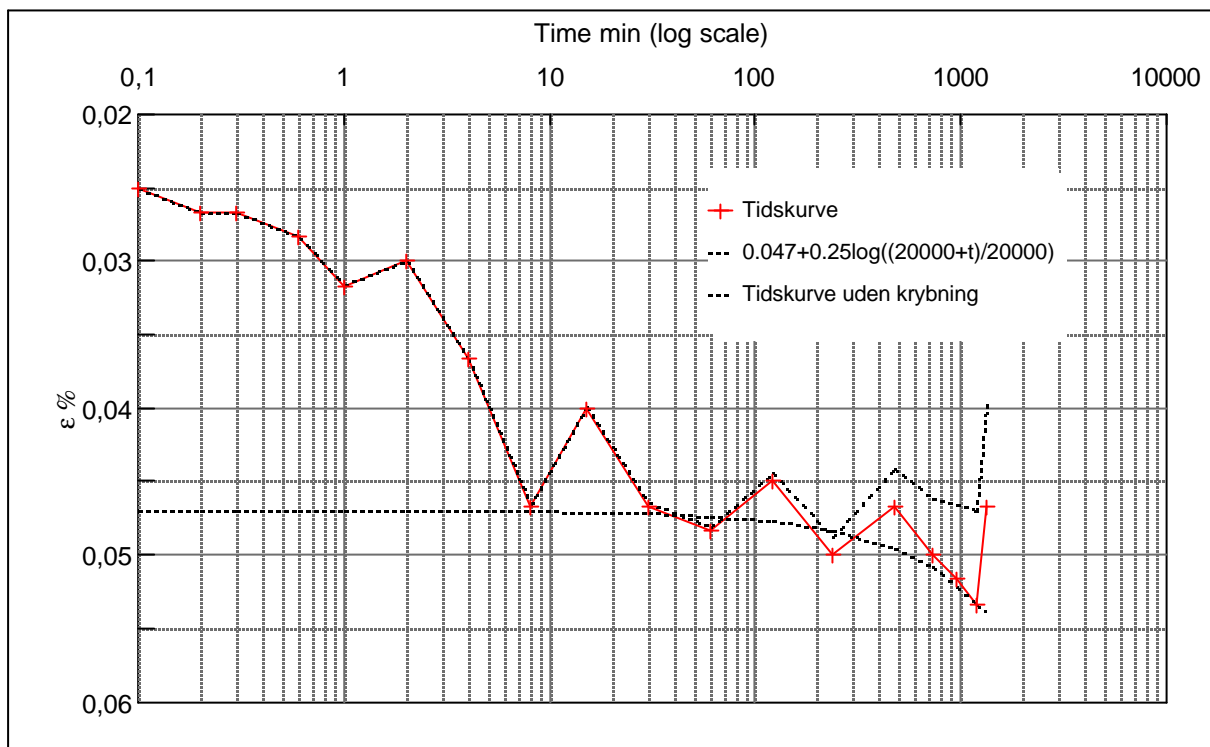
Step no 1	σ	kPa	ε	%	ε_i	tc in sec	117,6
	Before	2,43	ε_0	0,000	ε_c %	K i kPa	66.723
	After	11,10	$\varepsilon_{-#}$	0,012	ε_s	k10 m/sec	1,2E-09
					ε_{kyb}	ck10 m ² /sec	8,25E-06



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby	AAU
	Encl. No 11.3
Executed: AMS/gt	Check:
Approved:	

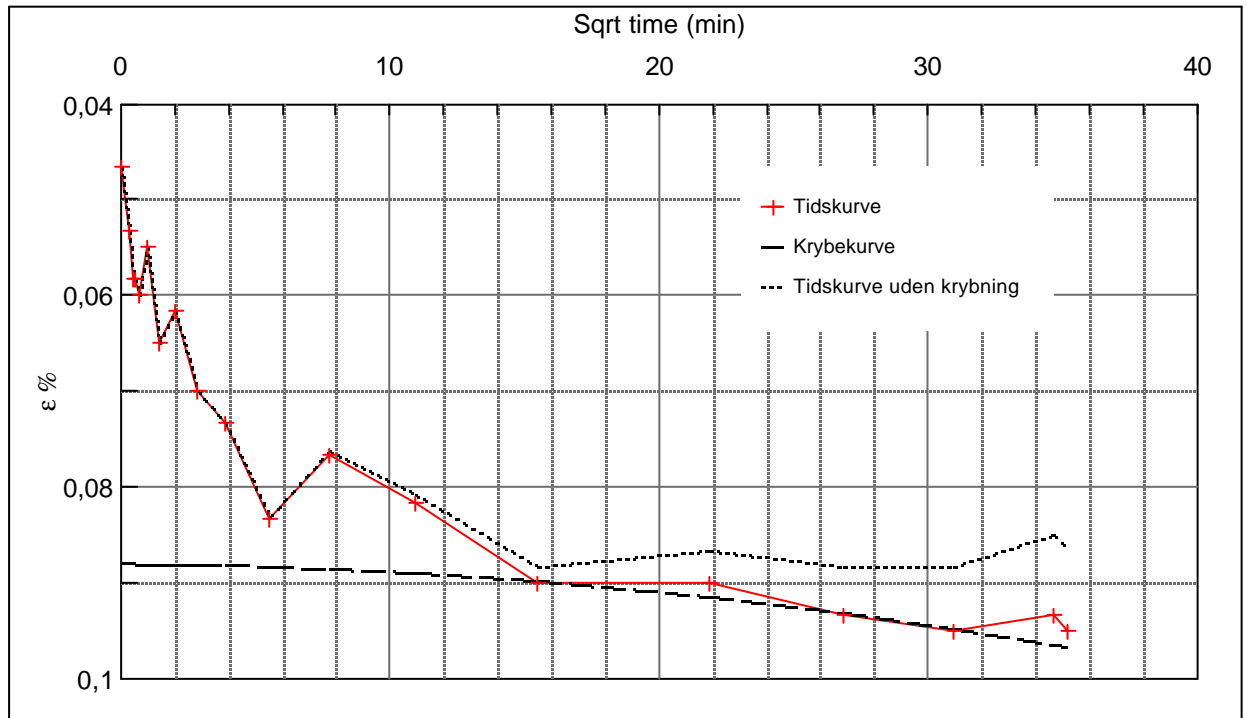
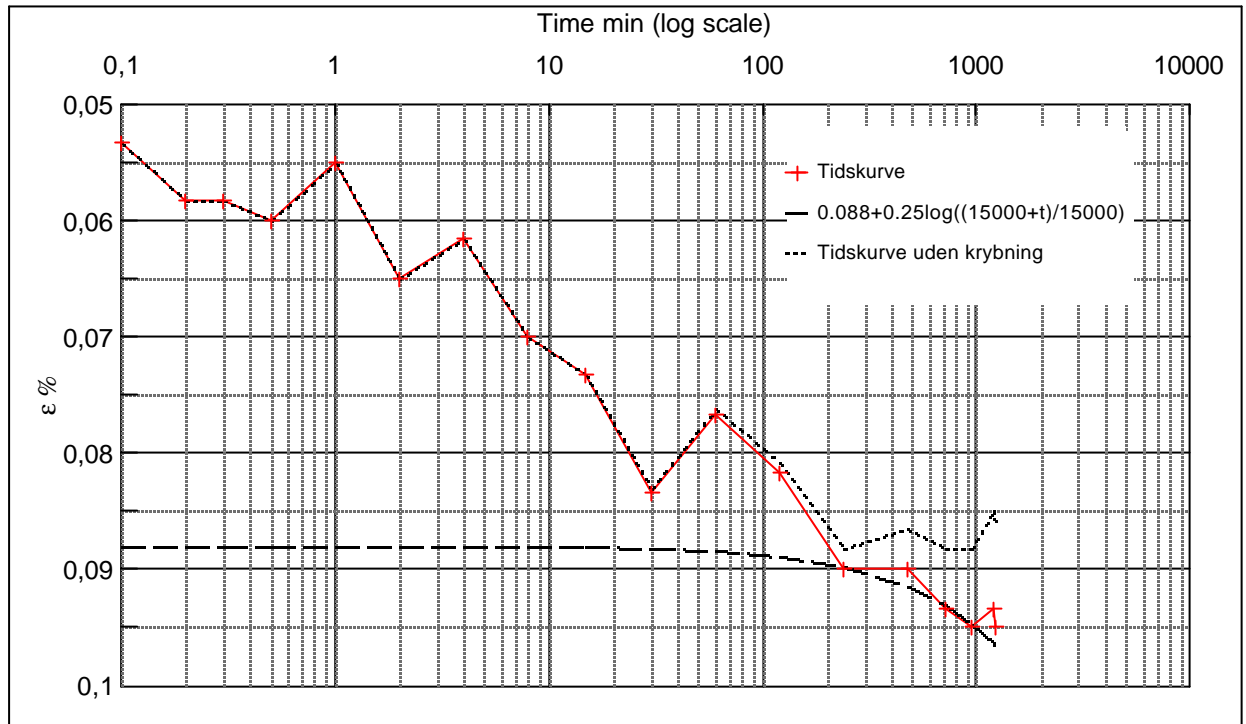
Step no 2	σ	kPa	ϵ	%	ϵ_i		tc in sec	540
	Before	11,1	ϵ_0	0,012	ϵ_c %	0,047	K i kPa	24.549
	After	19,8	$\epsilon_{\sim\#}$	0,047	ϵ_s	0,003	k10 m/sec	7,2E-10
					ϵ_{kryb}	0	ck10 m^2/sec	1,80E-06



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 11.4
Approved:		Check:

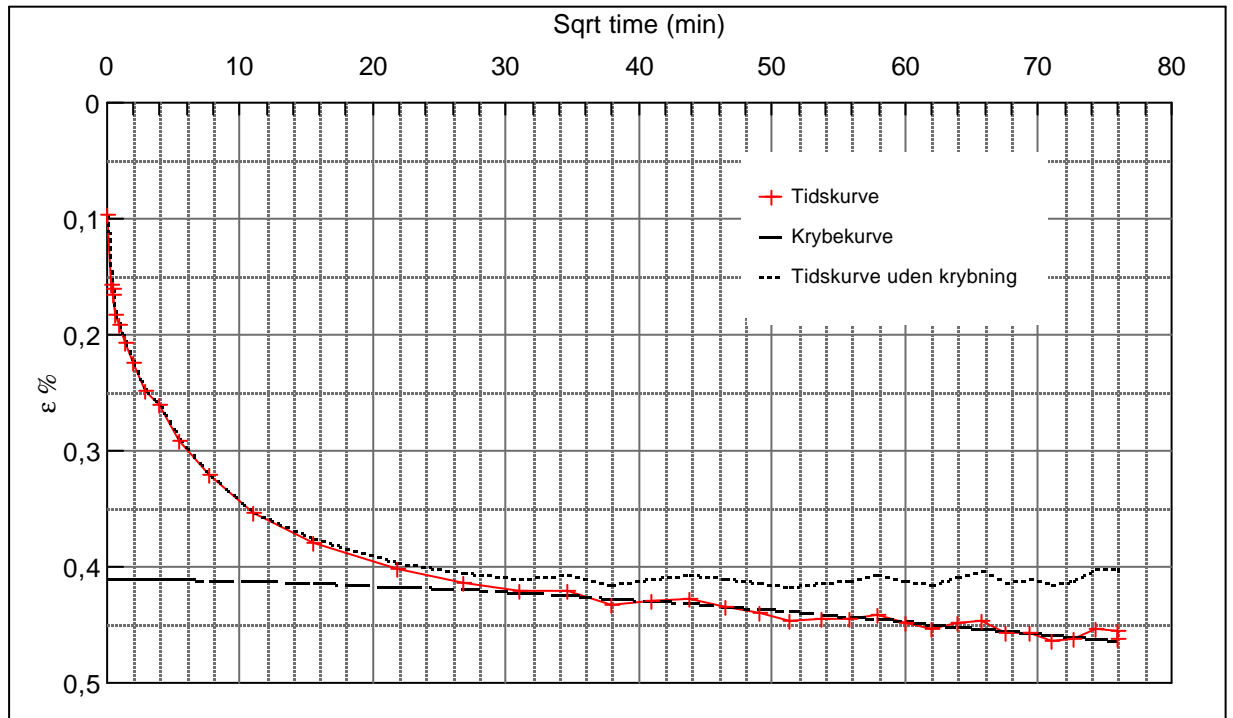
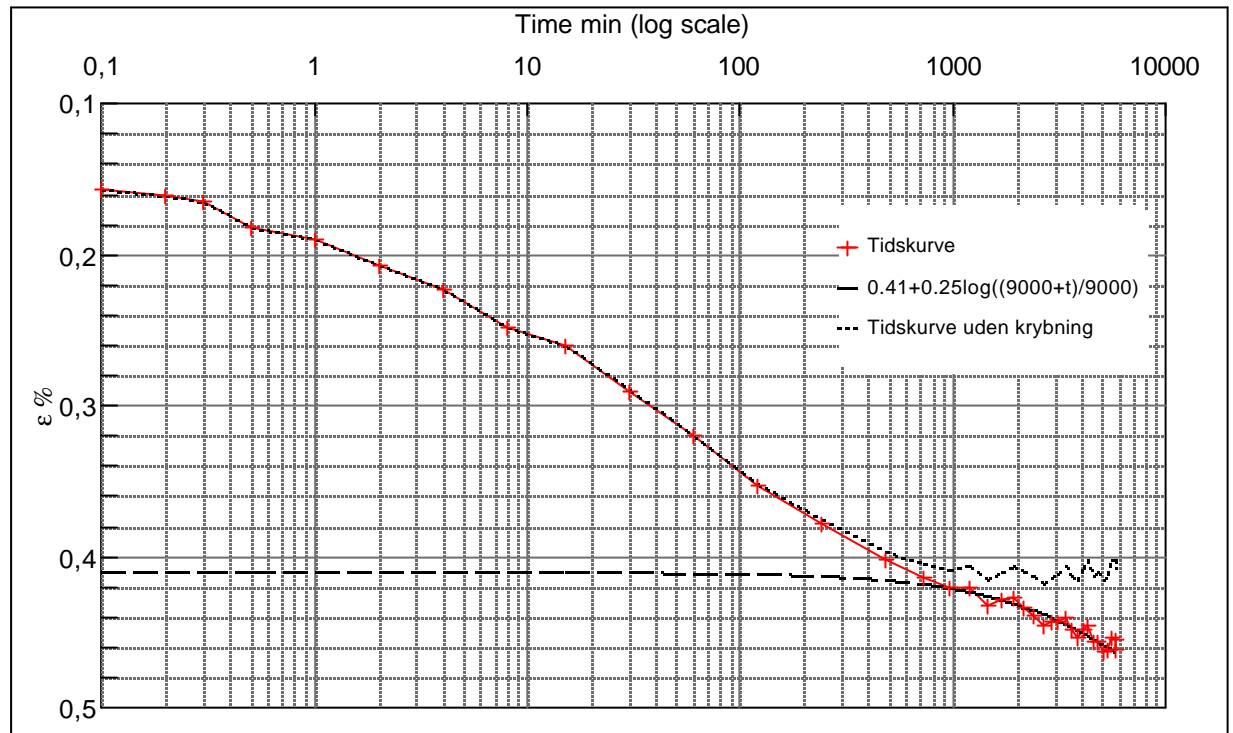
Step no 3	σ	kPa	ϵ	%	ϵ_i		tc in sec	2160
	Before	19,8	ϵ_0	0,05	ϵ_c %	0,09	K i kPa	40.034
	After	37,1	$\epsilon_{\sim\#}$	0,10	ϵ_s	0,006	k10 m/sec	1,101E-10
					ϵ_{kryb}	0,005	ck10 m ² /sec	4,49E-07



Material: Clay, Weichsel		
Bor no :	3	Depth: 22 m.b.s.
Lab. no:	K 16	Insitu stress. 220 kPa

Job:		AAU
Nr. Lyngby		Encl. No 11.5
Executed:	AMS/gt	Check:
Approved:		

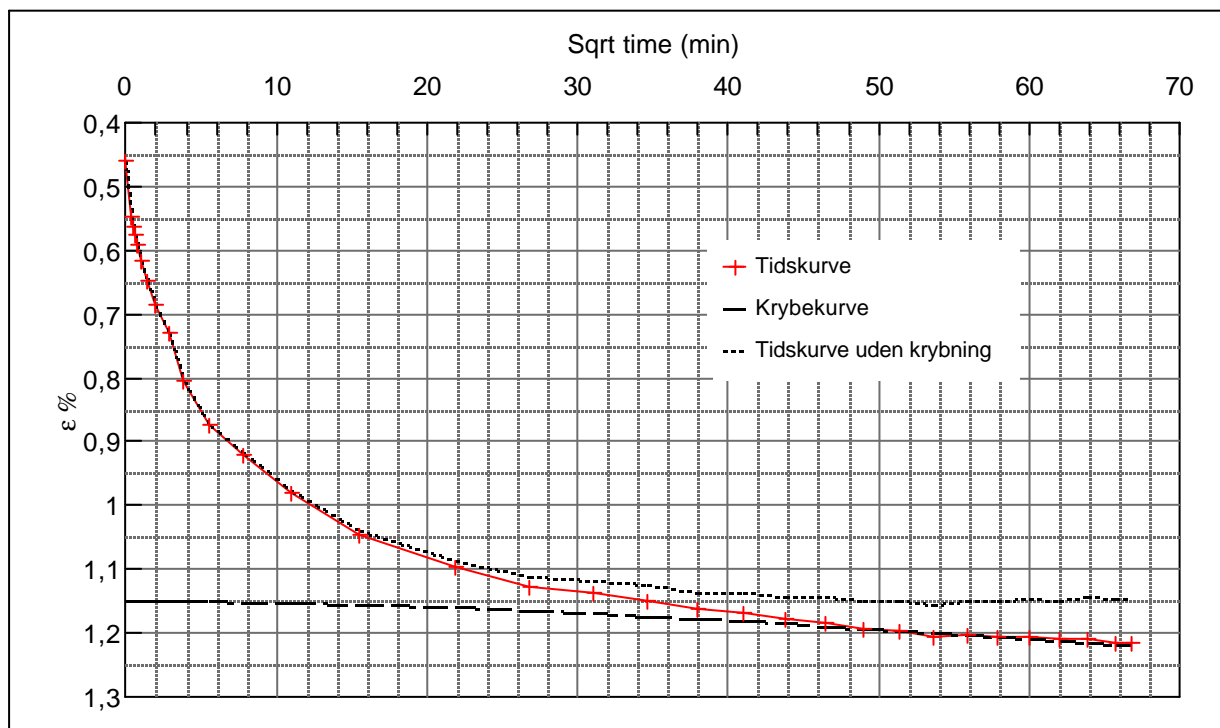
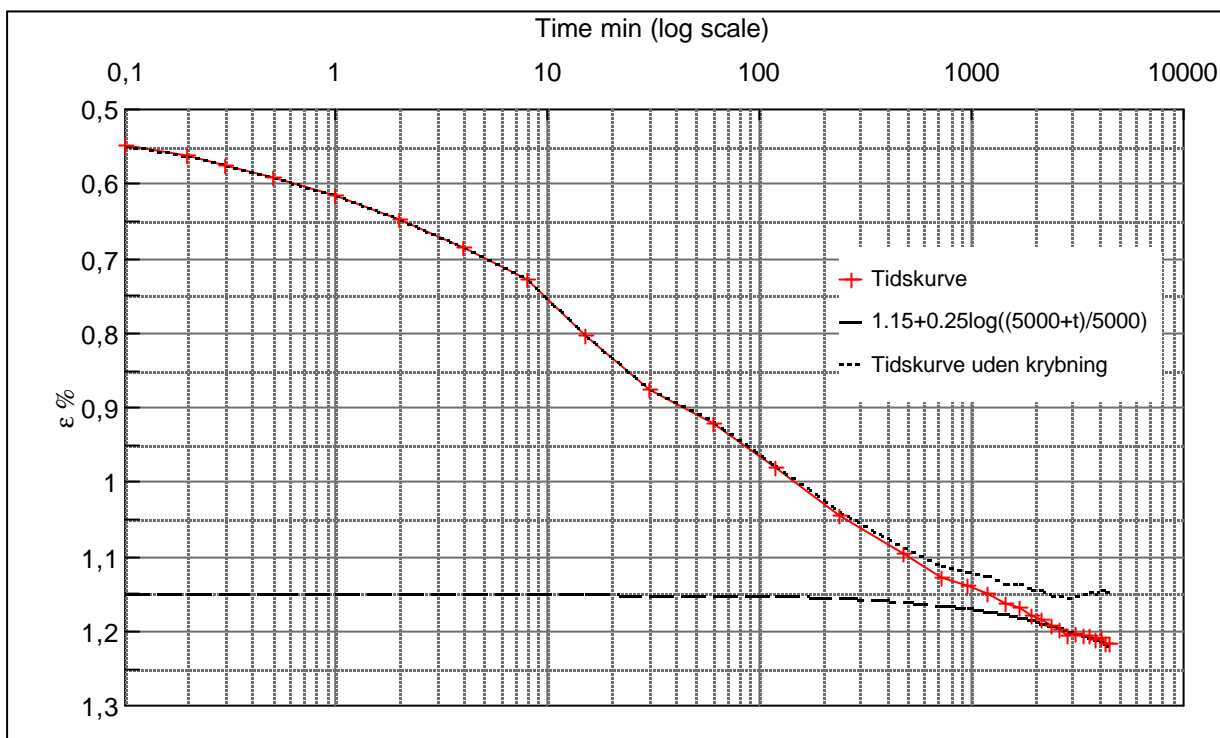
Step no 4	σ	kPa	ϵ	%	ϵ_i		t_c in sec	3840
	Before	37,1	ϵ_0	0,097	ϵ_c %	0,41	K_i kPa	11.073
	After	71,8	$\epsilon_{\sim\#}$	0,462	ϵ_s	0,05	k_{10} m/sec	2,24E-10
					ϵ_{kryb}	0,05	ck_{10} m ² /sec	2,53E-07



Material: Clay, Weichsel		
Bor no :	3	Depth: 22 m.b.s.
Lab. no:	K 16	Insitu stress. 220 kPa

Job:		AAU
Nr. Lyngby		Encl. No 11.6
Executed:	AMS/gt	Check:
Approved:		

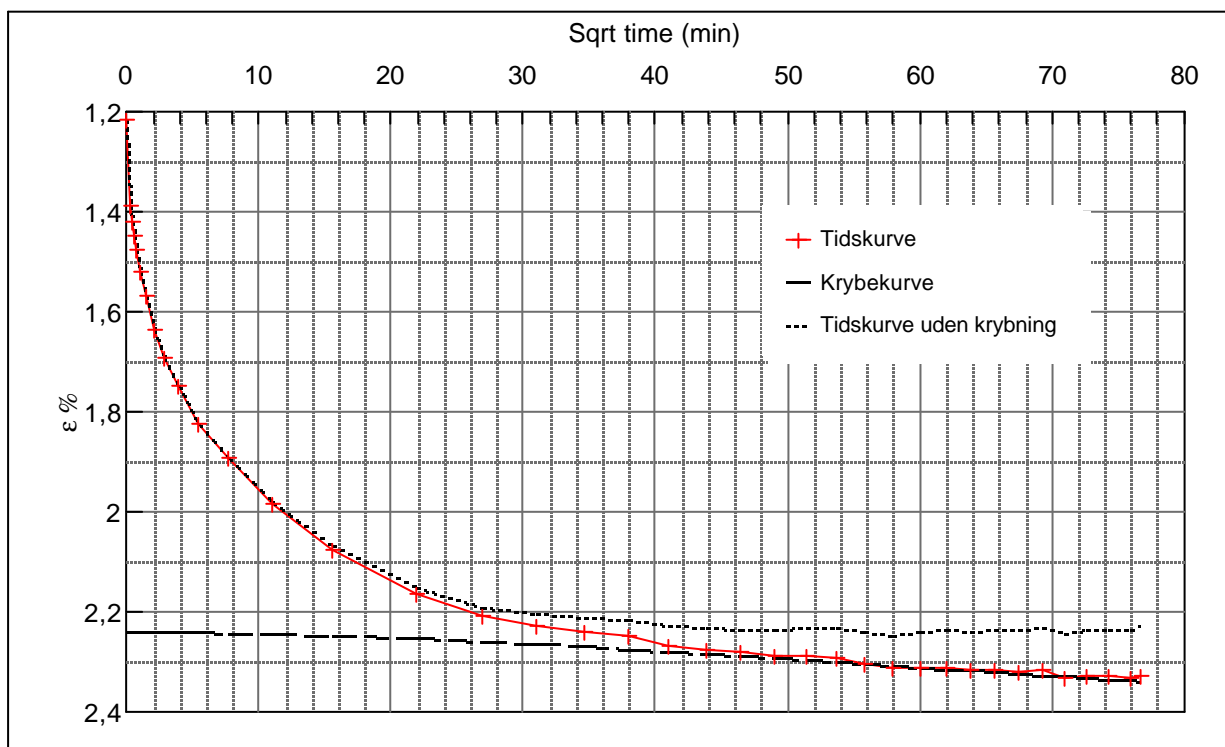
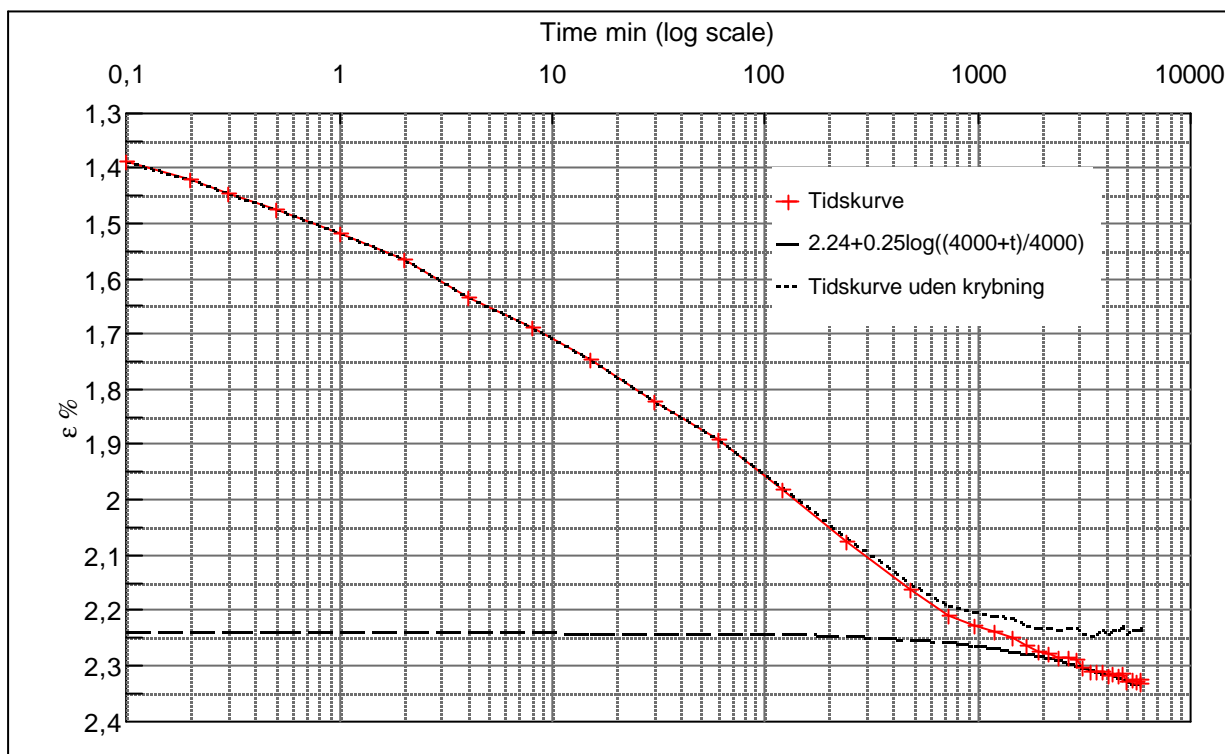
Step no 5	σ	kPa	ε	%	ε_i	tc in sec	6000
	Before	71,8	ε_0	0,46	ε_c %	K i kPa	10.033
	After	141,2	$\varepsilon_{-#}$	1,22	ε_s	k10 m/sec	1,58E-10
					ε_{kryb}	ck10 m ² /sec	1,62E-07



Material: Clay, Weichsel		
Bor no :	3	Depth: 22 m.b.s.
Lab. no:	K 16	Insitu stress. 220 kPa

Job:		AAU
Nr. Lyngby		Encl. No 11.7
Executed:	AMS/gt	Check:
Approved:		

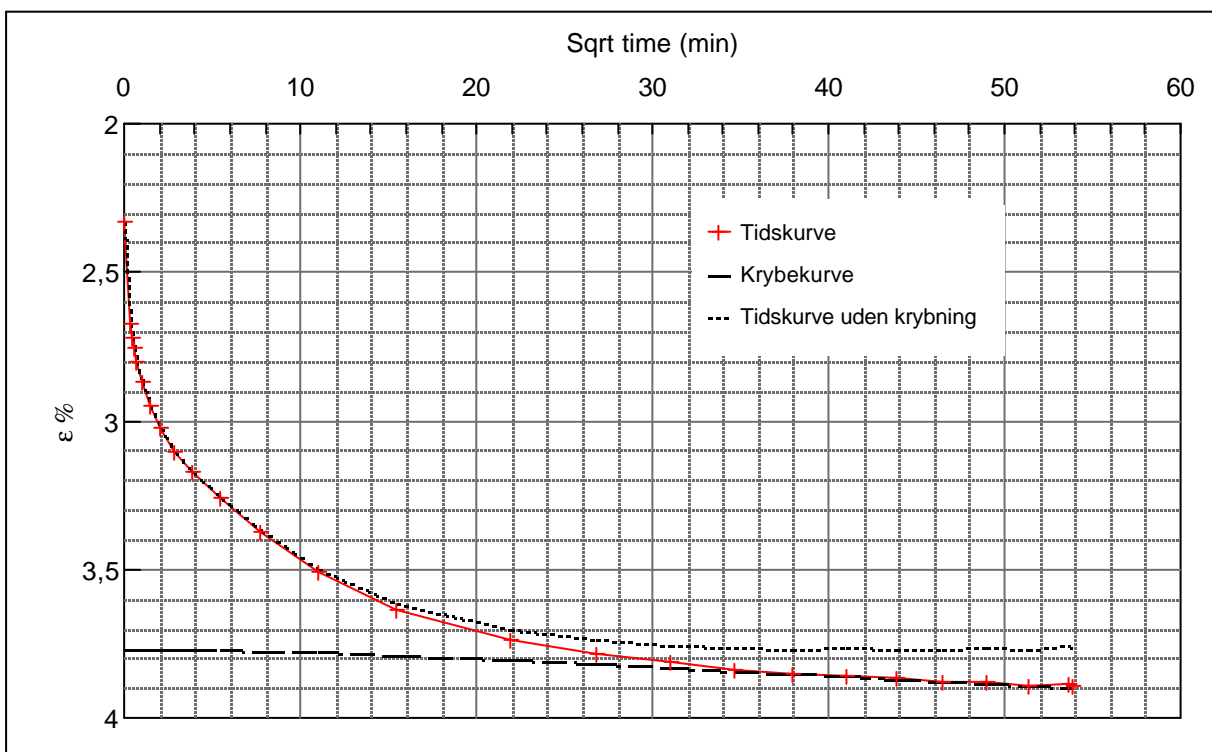
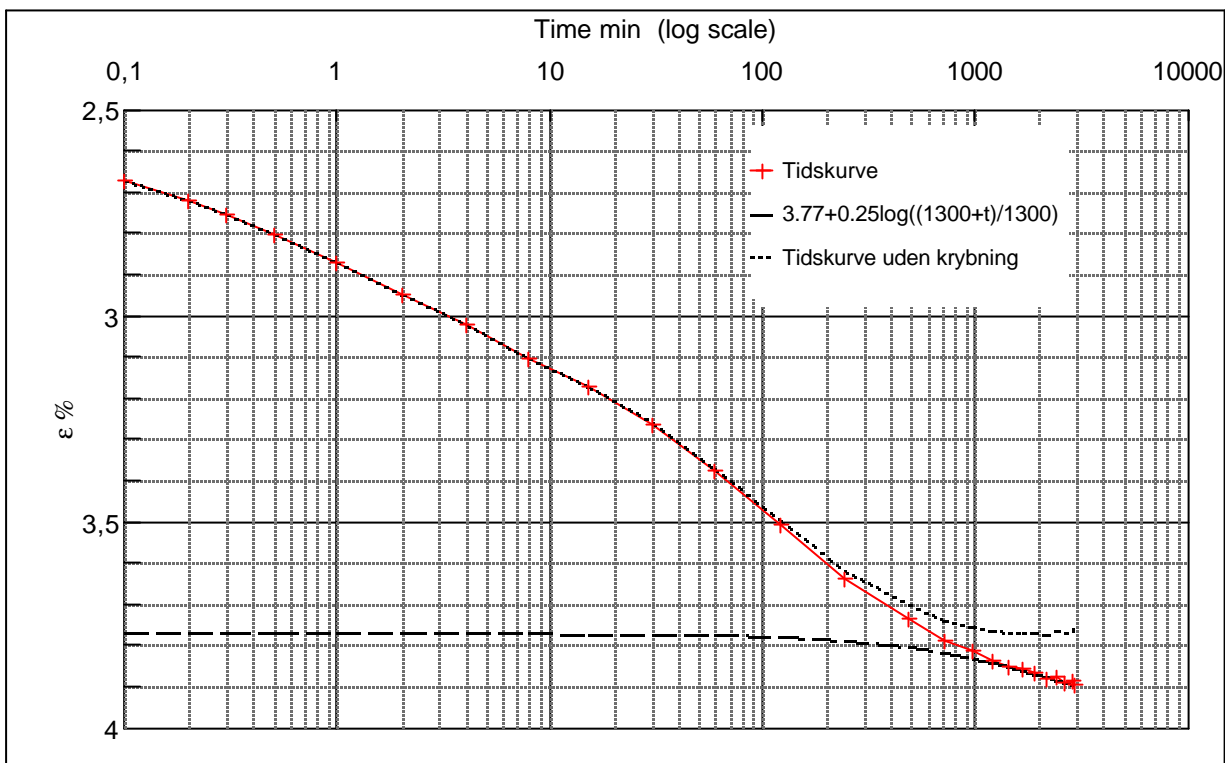
Step no 6	σ	kPa	ε	%	ε_i	tc in sec	2940
	Before	141,2	ε_0	1,21	ε_c %	K i kPa	13.518
	After	280,0	$\varepsilon_{\sim\#}$	2,33	ε_s	k10 m/sec	2,4E-10
					ε_{kryb}	ck10 m^2/sec	3,30E-07



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby		AAU
		Encl. No 11.8
Executed: AMS/gt	Check:	
Approved:		

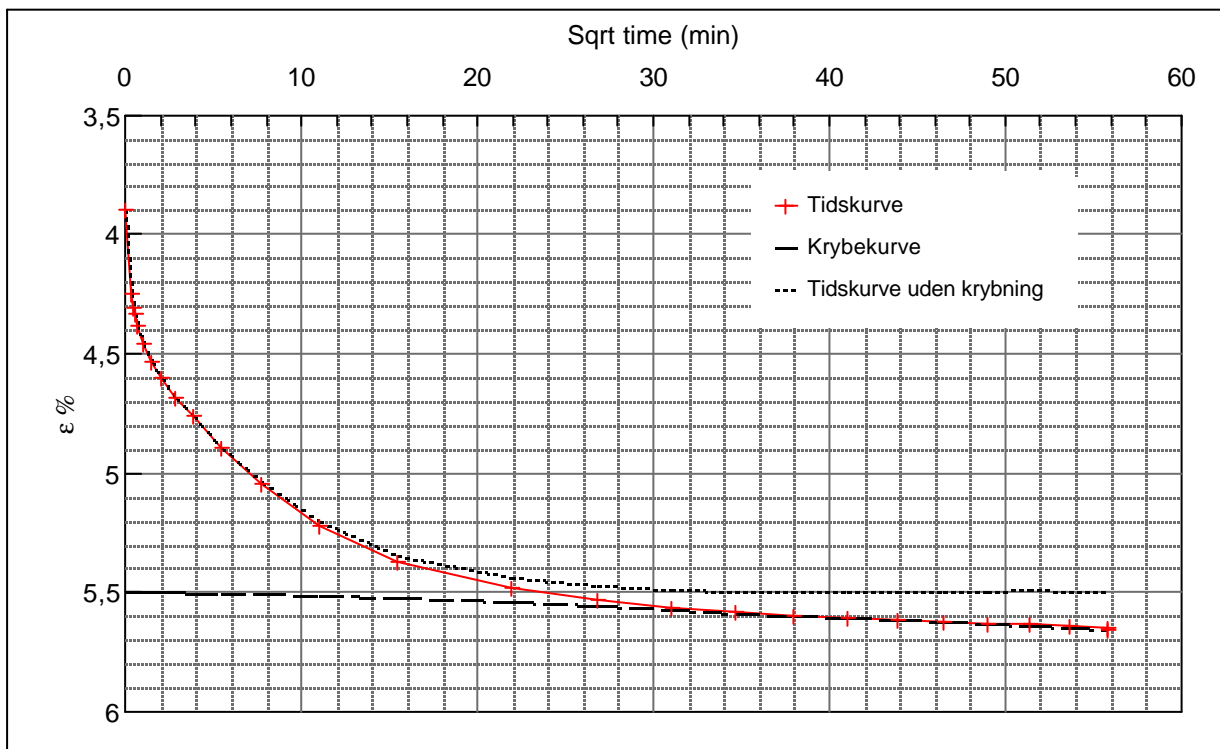
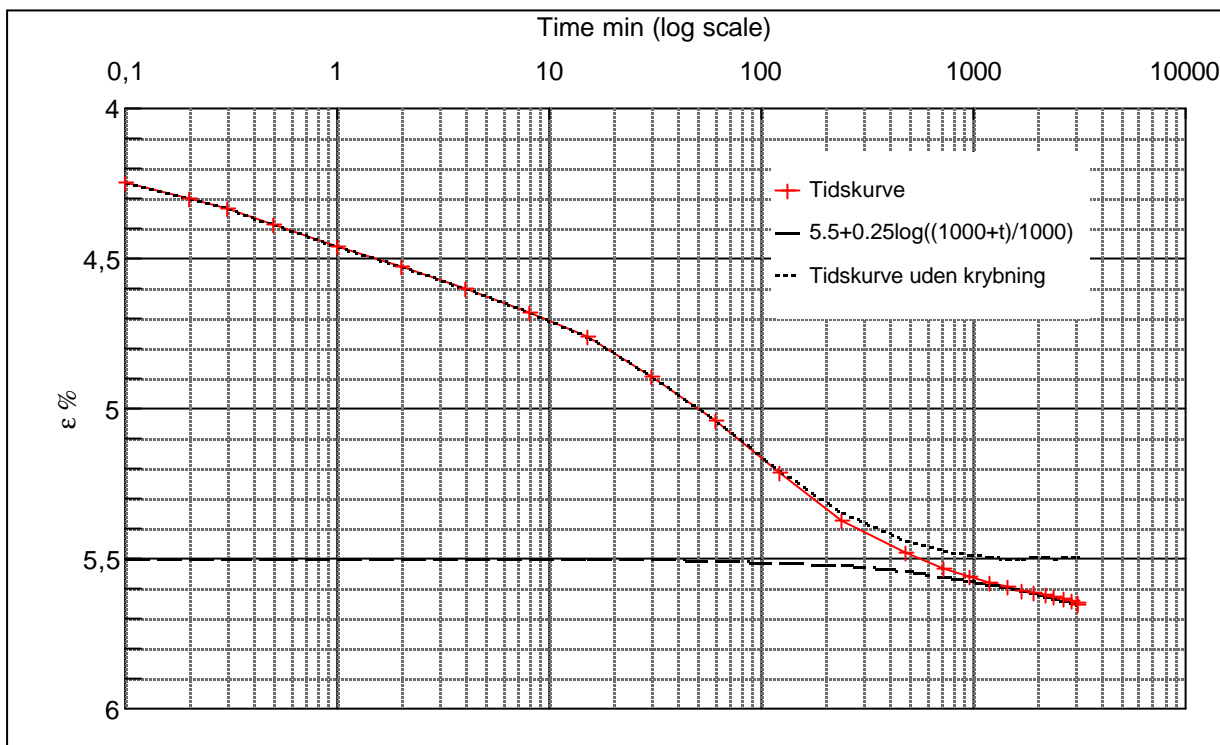
Step no 7	σ	kPa	ε	%	ε_i		tc in sec	1500
	Before	280,0	ε_0	2,33	ε_c %	3,77	K i kPa	24.094
	After	627,0	$\varepsilon_{\sim\#}$	3,90	ε_s	0,16	k10 m/sec	2,6E-10
					ε_{kryb}	0,13	ck10 m^2/sec	6,46E-07



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 11.9
Approved:		Check:

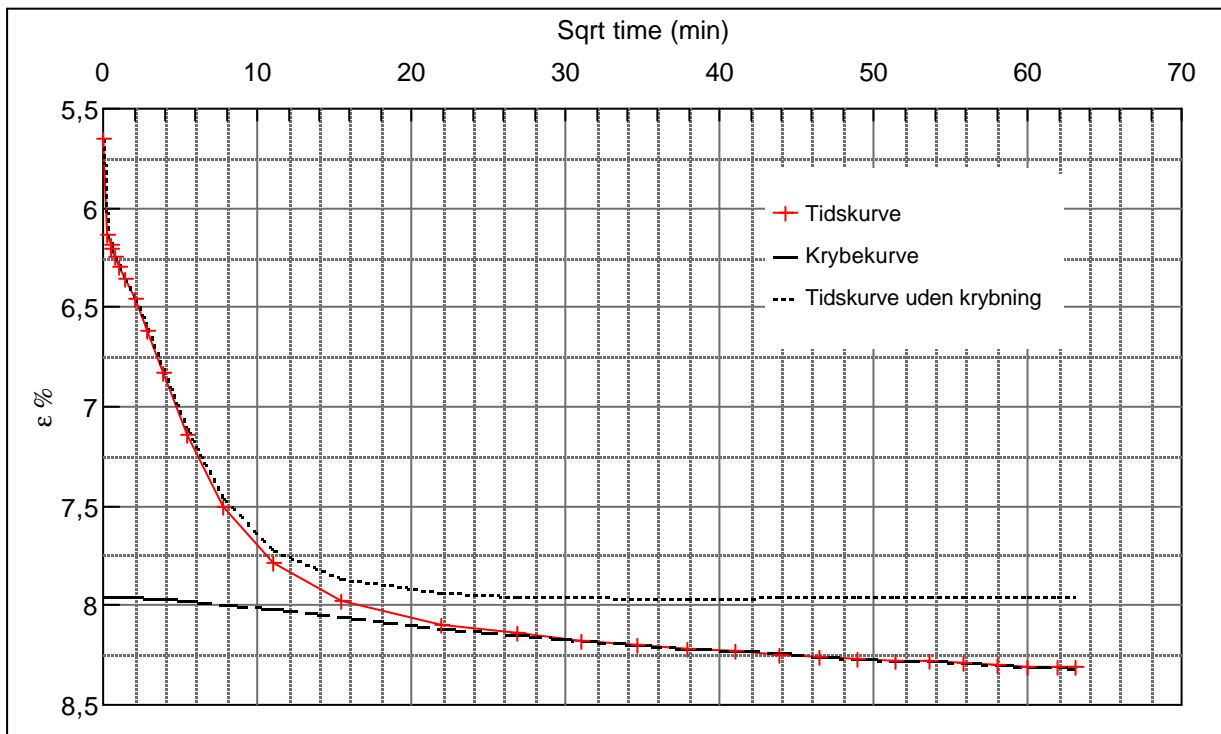
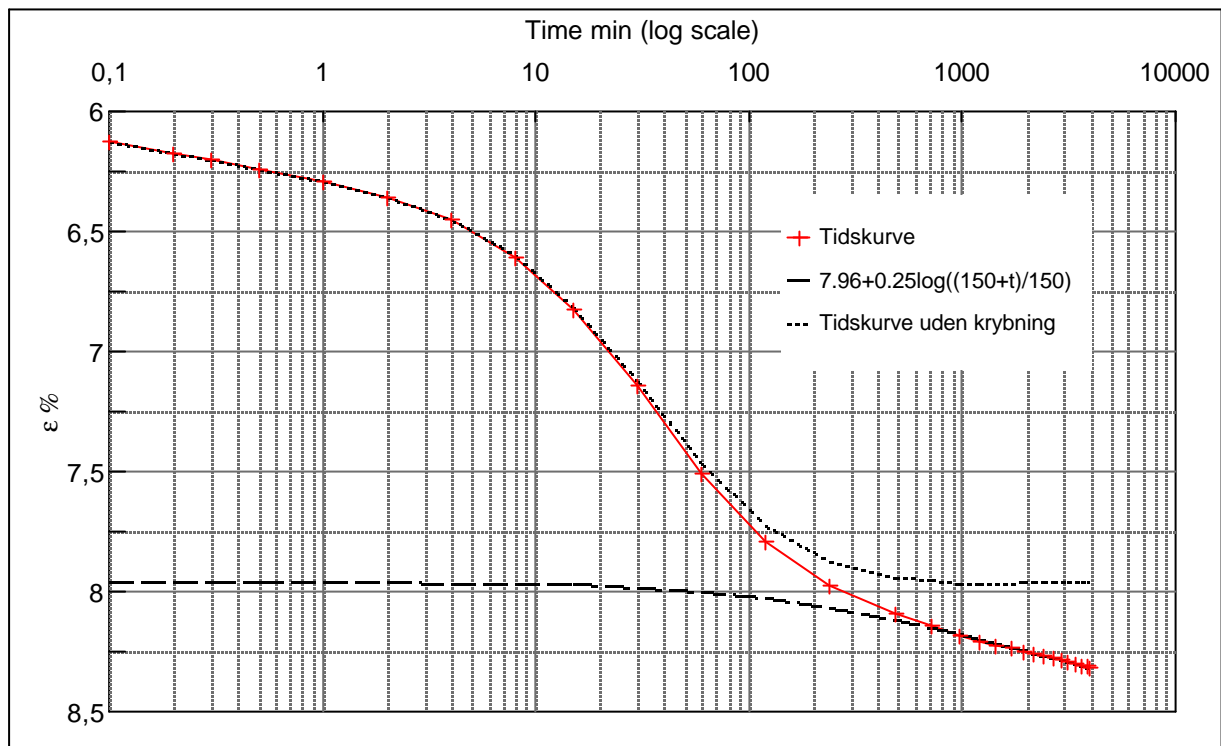
Step no 8	σ	kPa	ϵ	%	ϵ_i	tc in sec	9375
	Before	627,0	ϵ_0	3,89	ϵ_c %	K i kPa	43.190
	After	1.320,9	$\epsilon_{\sim\#}$	5,65	ϵ_s	k10 m/sec	2,4E-11
					ϵ_{kryb}	ck10 m ² /sec	1,03E-07



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 11.10
Approved:		Check:

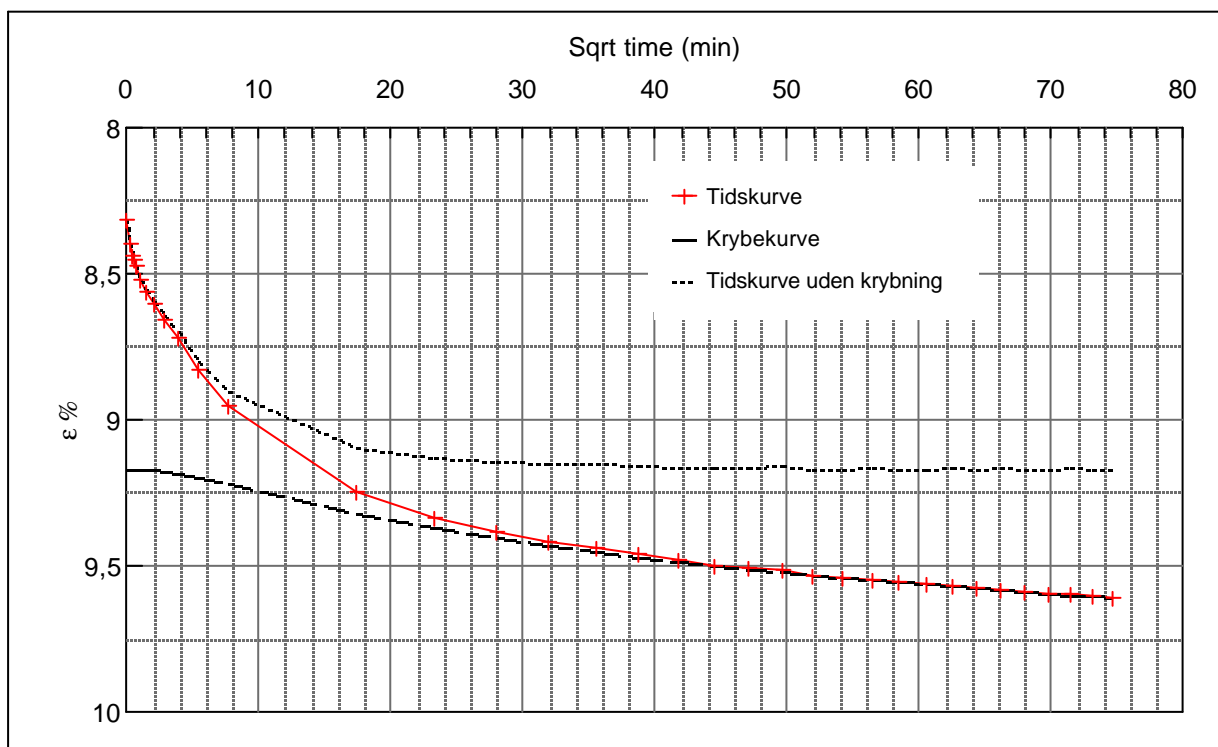
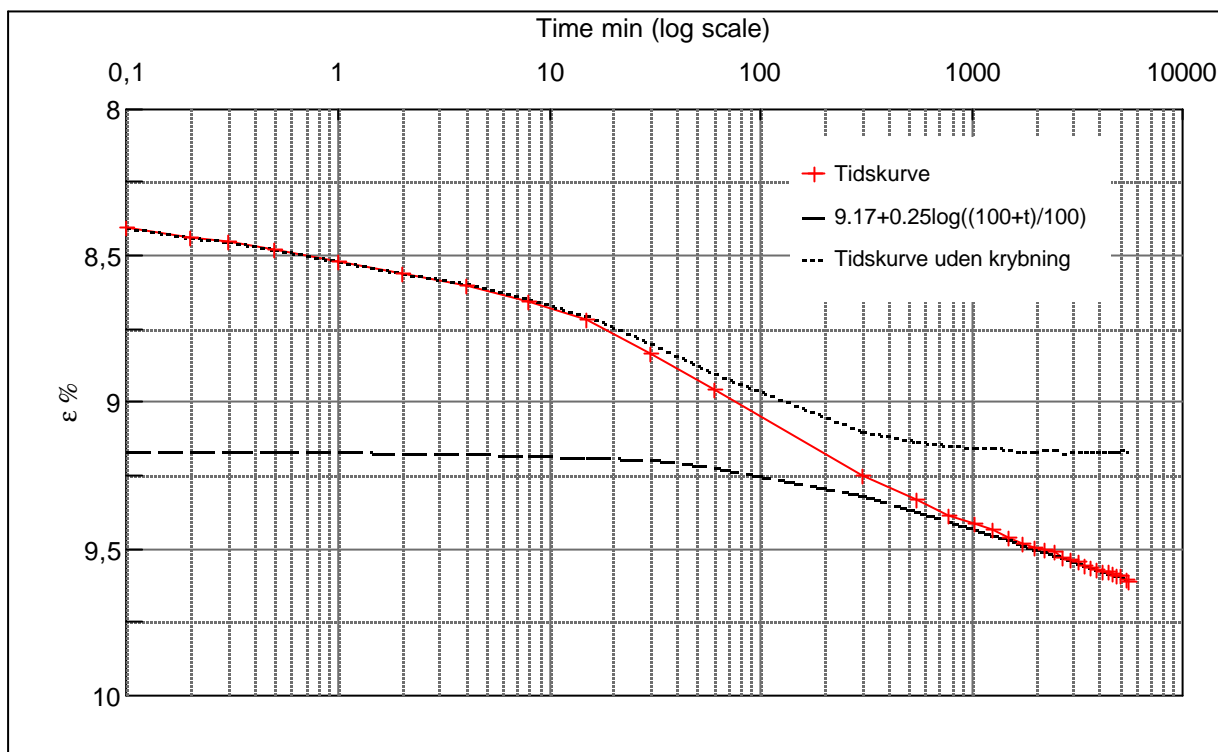
Step no 9	σ	kPa	ε	%	ε_i	tc in sec	6000
	Before	1.320,9	ε_0	5,65	ε_c %	K i kPa	90.054
	After	3.402,6	$\varepsilon_{-#}$	8,32	ε_s	k10 m/sec	1,8E-11
					ε_{kryb}	ck10 m ² /sec	1,62E-07



Material: Clay, Weichsel		
Bor no :	3	Depth: 22 m.b.s.
Lab. no:	K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby		AAU
		Encl. No 11.11
Executed:	AMS/gt	Check:
Approved:		

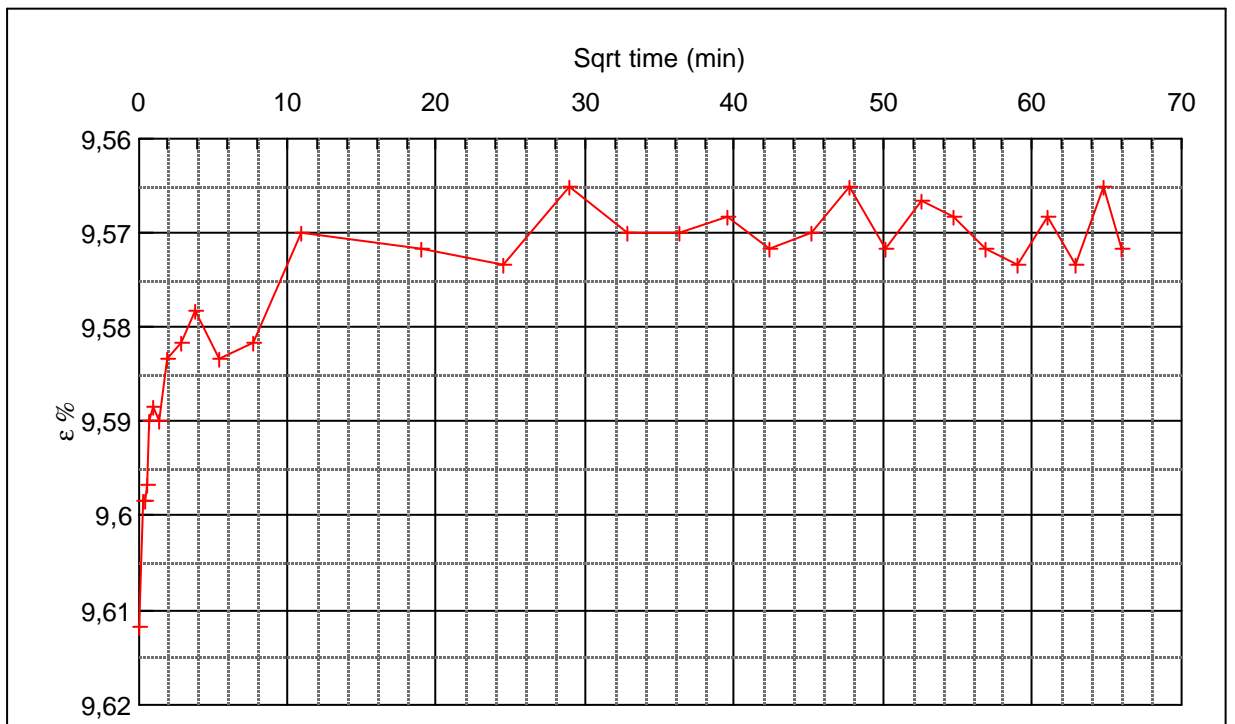
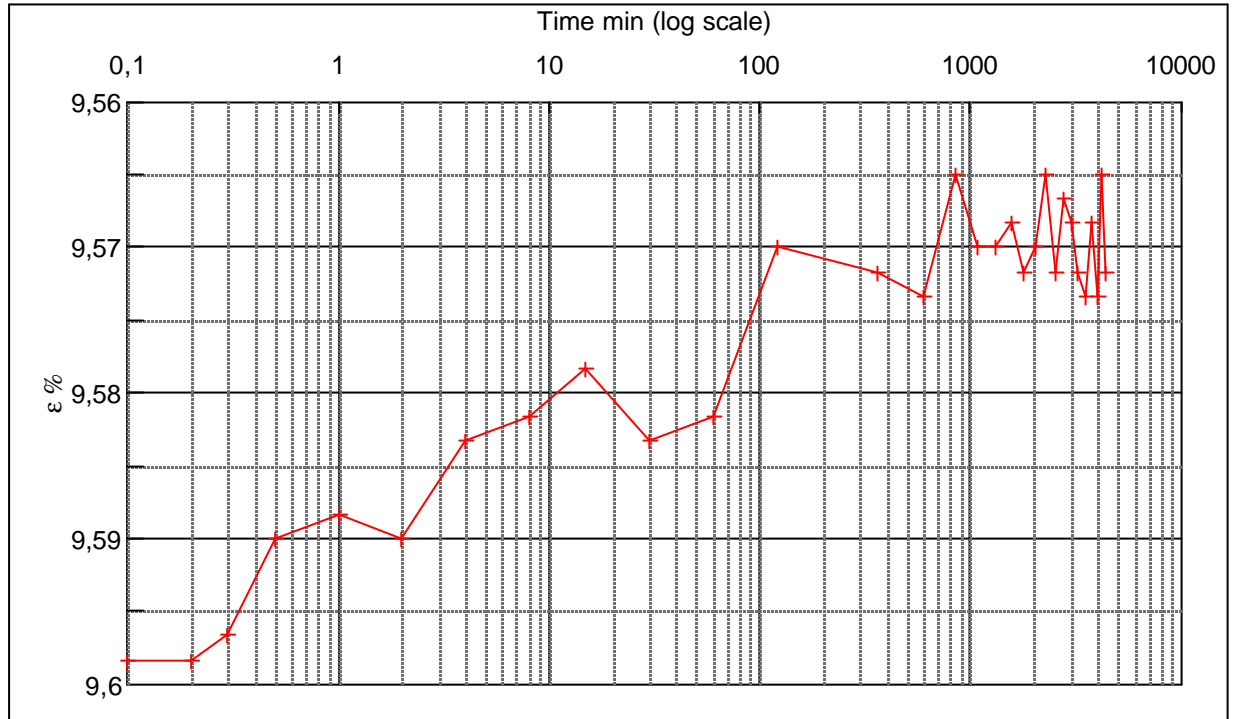
Step no 10	σ	kPa	ϵ	%	ϵ_i	tc in sec	7260
	Before	3.402,6	ϵ_0	8,32	ϵ_c %	K i kPa	202.899
	After	5.137,4	$\epsilon_{\sim\#}$	9,61	ϵ_s	k10 m/sec	6,5E-12
					ϵ_{kryb}	ck10 m^2/sec	1,34E-07



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby		AAU
Executed: AMS/gt		Encl. No 11.12
Approved:		Check:

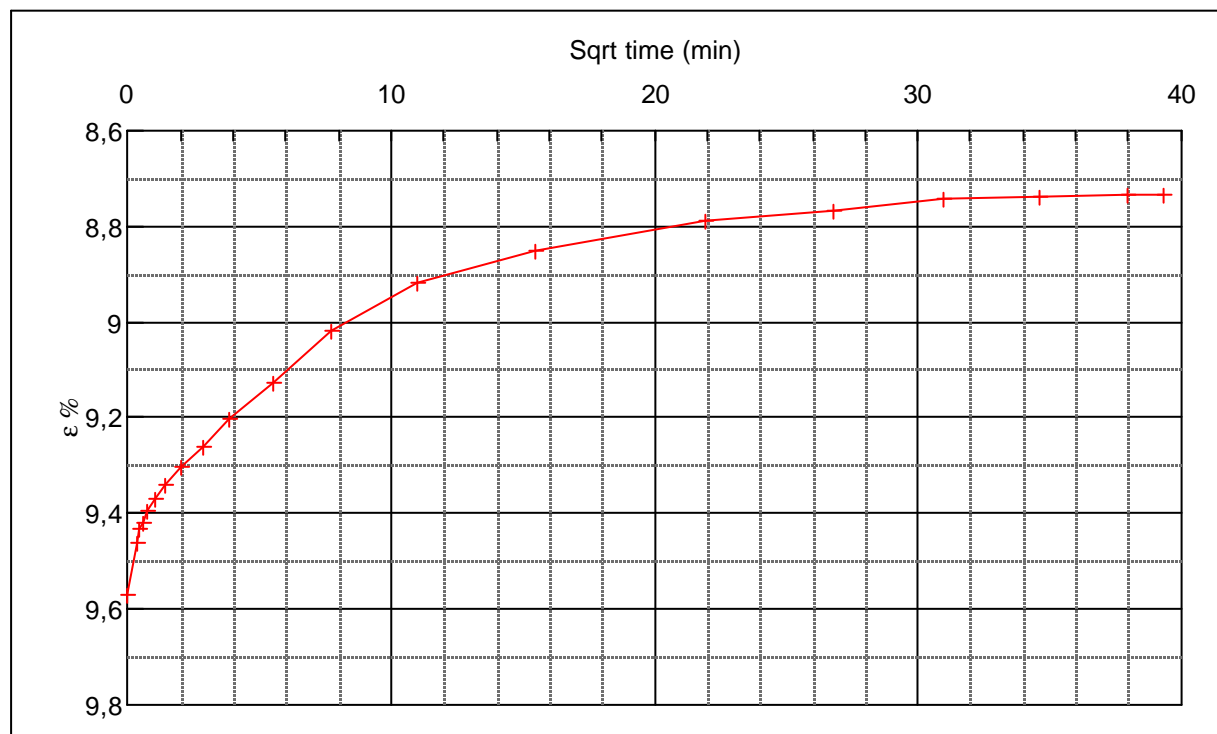
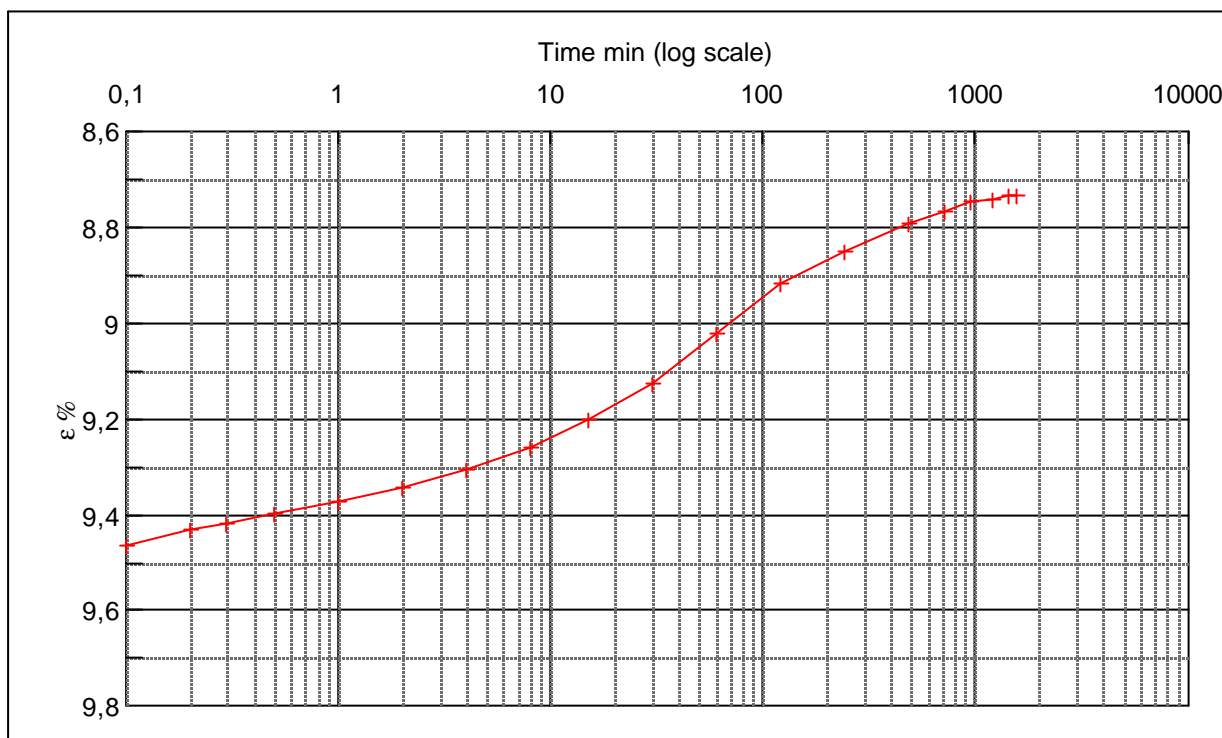
Step no 11	σ	kPa	ϵ	%	ϵ_i	tc in sec	1500
	Before	5.137,40	ϵ_0	9,61	ϵ_c %	K i kPa	4.373.417
	After	3.402,61	$\epsilon_{\sim\#}$	9,57	ϵ_s	k10 m/sec	1,5E-12
					ϵ_{kyb}	ck10 m ² /sec	6,47E-07



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby	AAU
	Encl. No 11.13
Executed: AMS/gt	Check:
Approved:	

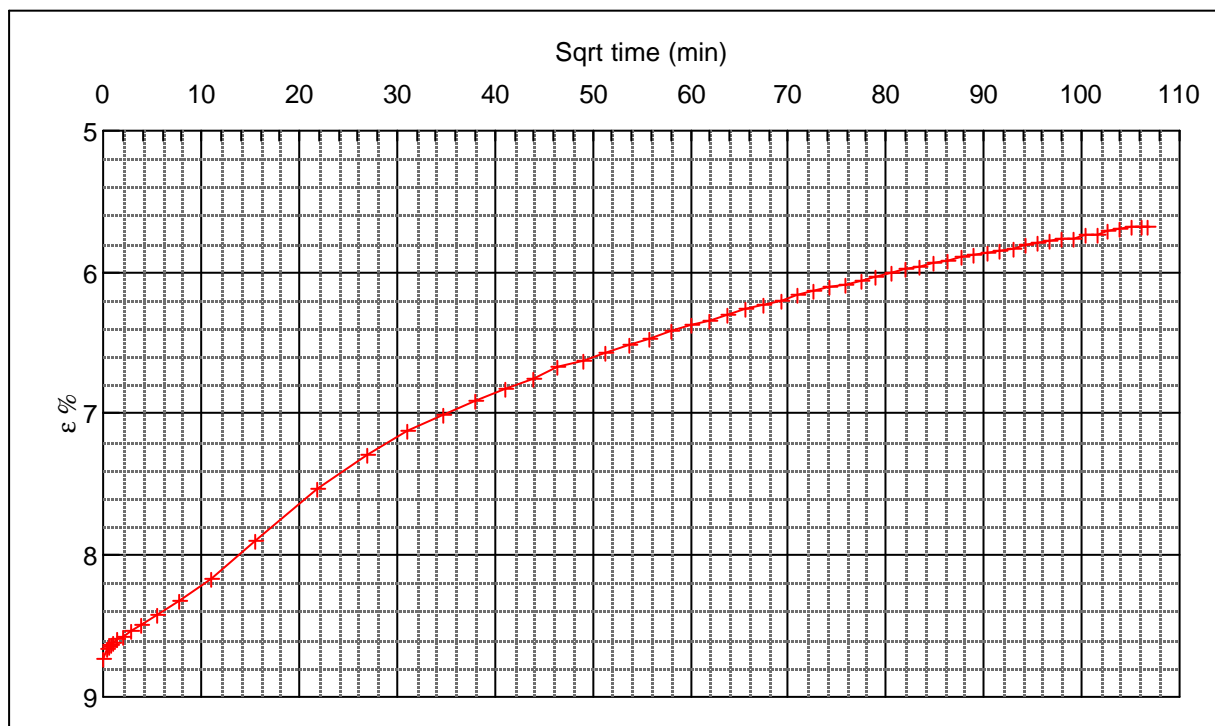
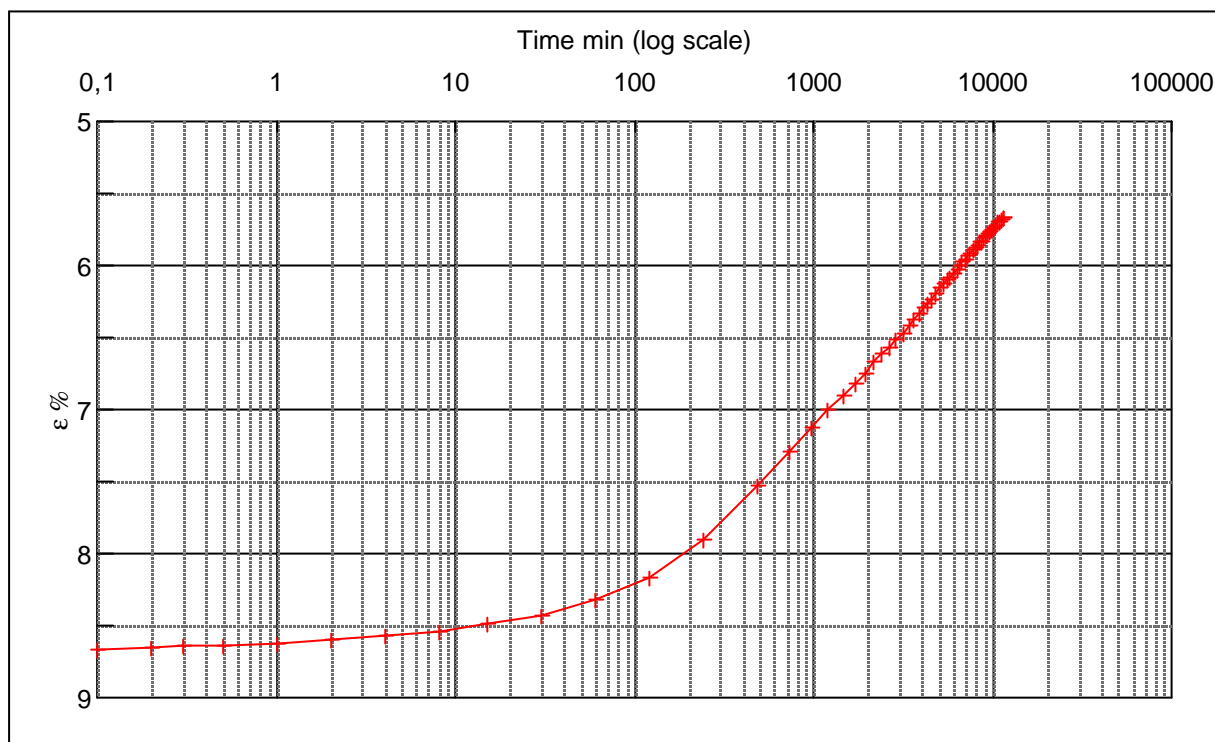
Step no 12	σ	kPa	ϵ	%	ϵ_i	tc in sec	10140
	Before	3.402,61	ϵ_0	9,57	ϵ_c %	K i kPa	330.961
	After	626,95	$\epsilon_{-#}$	8,73	ϵ_s	k10 m/sec	2,8E-12
					ϵ_{kryb}	ck10 m ² /sec	9,56E-08



Material: Clay, Weichsel	
Bor no : 3	Depth: 22 m.b.s.
Lab. no: K 16	Insitu stress. 220 kPa

Job: Nr. Lyngby		AAU
		Encl. No 11.14
Executed:	AMS/gt	Check:
Approved:		

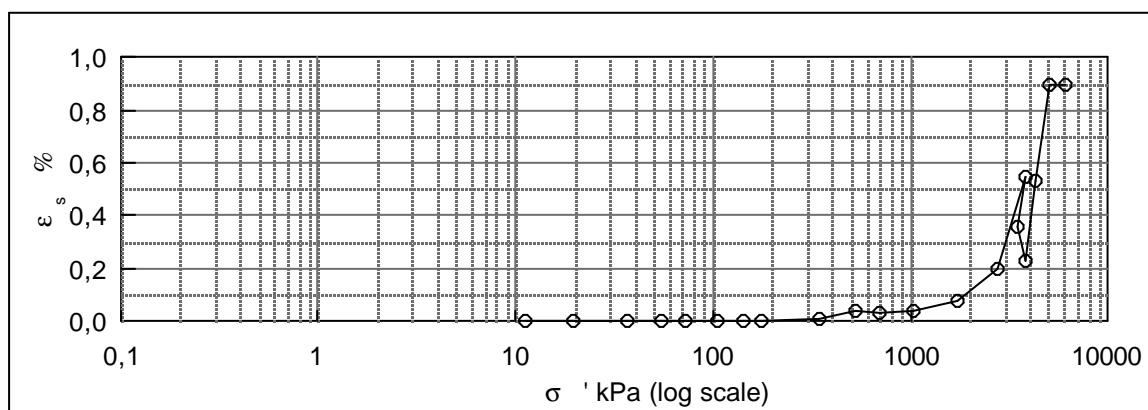
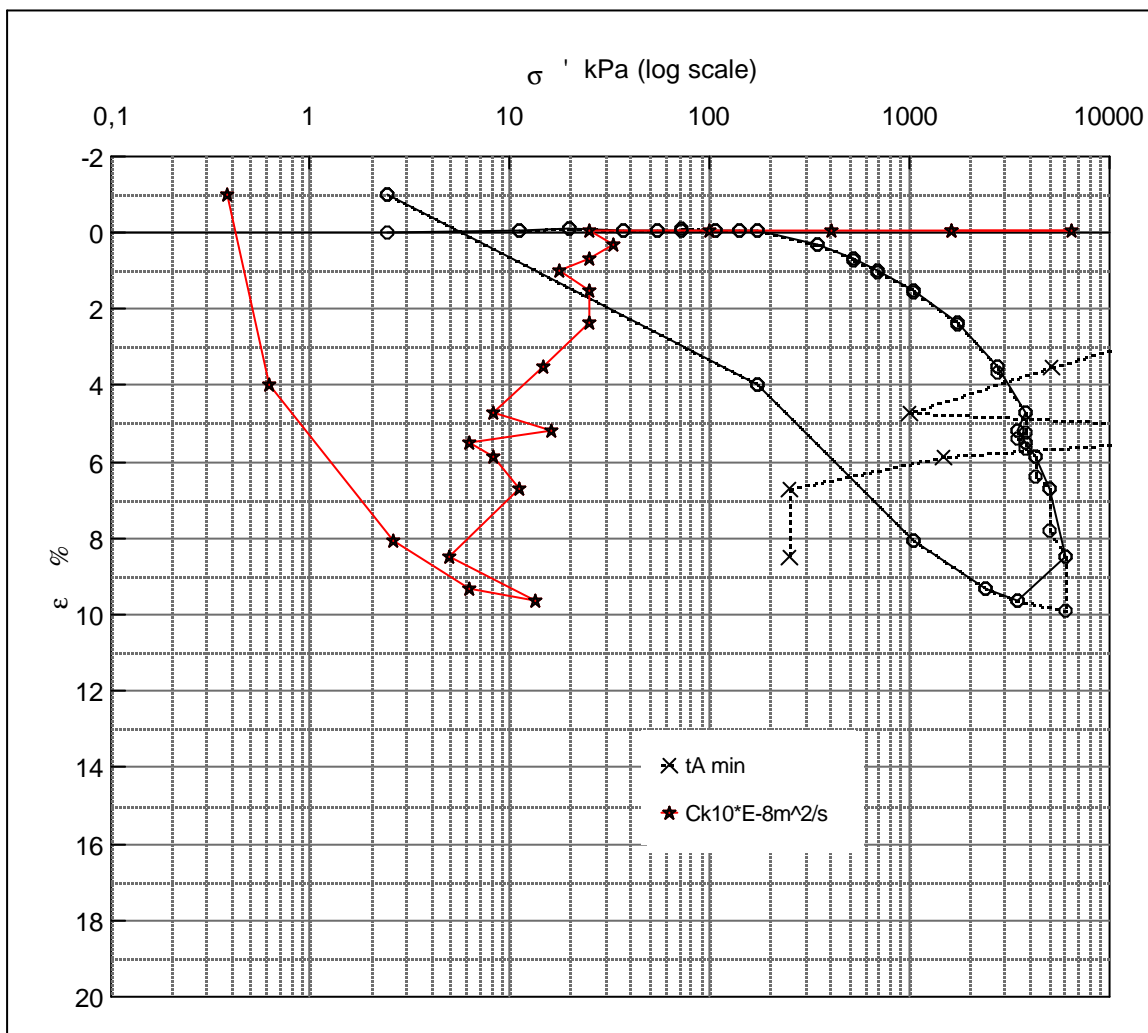
Step no 13	σ	kPa	ϵ	%	ϵ_i	tc in sec	194940
	Before	626,95	ϵ_0	8,73	ϵ_c %	K i kPa	20.429
	After	2,43	$\epsilon_{-#}$	5,67	ϵ_s	k10 m/sec	2,4E-12
					ϵ_{kryb}	ck10 m ² /sec	4,97E-09



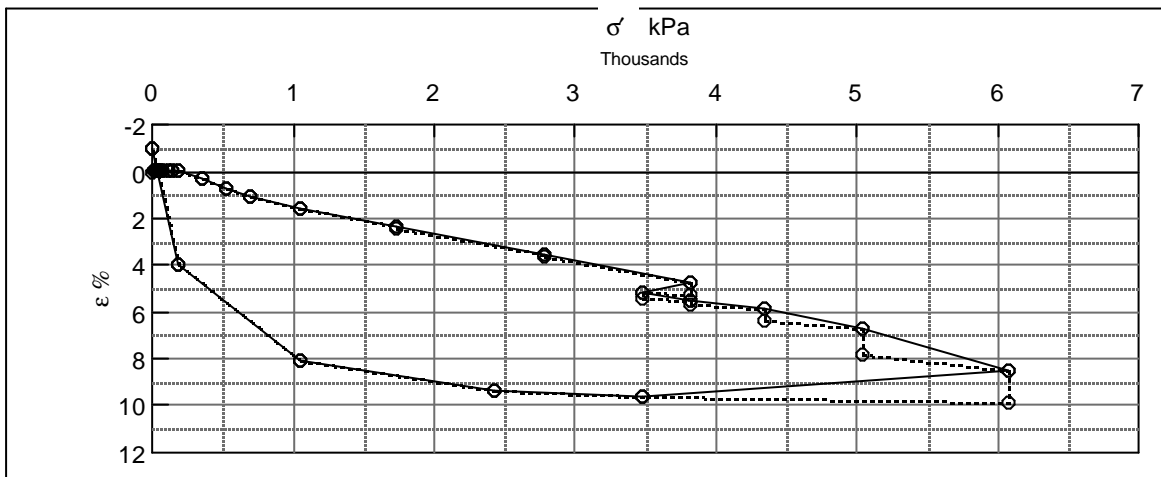
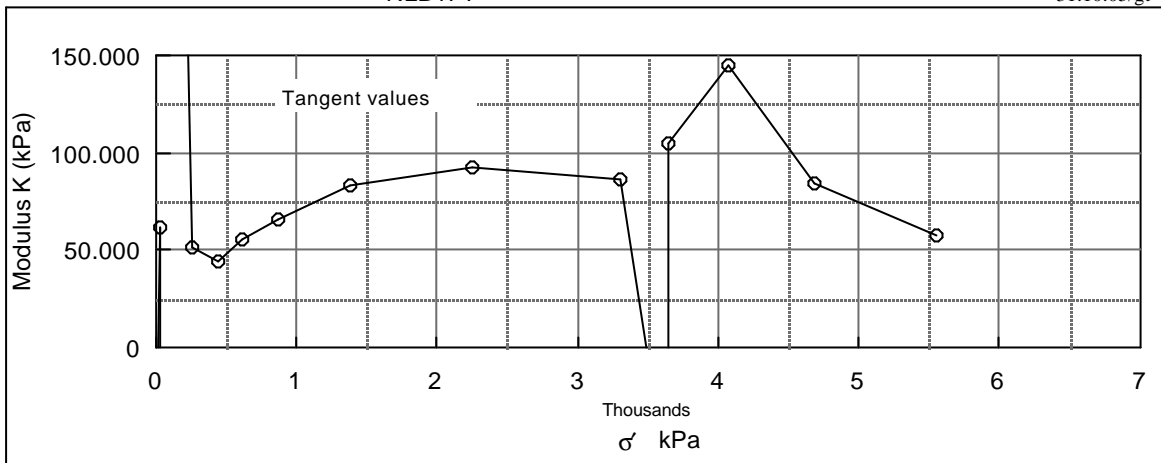
Material: Clay, Weichsel		
Bor no :	3	Depth: 22 m.b.s.
Lab. no:	K 16	Insitu stress. 220 kPa

Job:		AAU
Nr. Lyngby		Encl. No 11.15
Executed:	AMS/gt	Check:
Approved:		

Description of soil: Clay, Eemian, Interglacial				Water content %	Before	After
				Bulk density Mg/m ³	27,7	29,8
				Grain density Mg/m ³	1,94	1,95
				Void ratio	~2.72	
Bor no : 1	Overburden pressure σ'_o	~650 kPa		Degr. of Saturation %	0,79	0,81
Lab. no: P 7	Vane strength c_v	>714 kPa		Dimension H x D mm	95,5	100
Level : 64.5 m.b.s	CPT - value q_c	MPa			30 x 60	30.36 x 60



Job: Nørre Lyngby		AAU
		Encl. No 12.1
Executed:	AMS/gt	Check:
Approved:		



Test results		σ' kPa	ϵ_c %	ϵ_s % / lct	Ck10 m ² /s	σ'_m kPa	K kPa	w %
Q	23 %	2,4	0,00					29,1
Qs	0.9 %	11,1	(0,06)	0,00		6,8	-13768,2	29,2
σ'_{pc}	~5000 kPa	19,8	(0,08)	0,00		15,4	-57826,3	29,2
		37,1	(0,05)	0,00	1,6E-05	28,5	61956,7	29,2
		54,5	(0,06)	0,00	1,6E-05	45,8	-144565,7	29,2
		71,8	(0,06)	0,00	6,5E-05	63,1	ERR	29,2
		106,5	(0,05)	0,00	4,0E-06	89,2	289131,5	29,2
		141,2	(0,04)	0,00	1,0E-06	123,9	346957,8	29,2
		175,9	(0,03)	0,00	2,5E-07	158,6	346957,8	29,2
		349,4	0,31	0,01	3,3E-07	262,6	51023,2	28,9
		522,9	0,70	0,04	2,5E-07	436,1	44481,8	28,7
		696,3	1,01	0,04	1,8E-07	609,6	55960,9	28,5
		1.043,3	1,54	0,04	2,5E-07	869,8	65463,7	28,1
		1.737,2	2,37	0,08	2,5E-07	1.390,3	83604,3	27,6
		2.778,1	3,50	0,20	1,5E-07	2.257,7	92112,7	26,8
		3.819,0	4,70	0,55	8,2E-08	3.298,5	86739,4	26,0
		3.472,0	5,19	0,36	1,6E-07	3.645,5	-70807,7	25,7
		3.819,0	5,52	0,23	6,3E-08	3.645,5	105138,7	25,5
		4.339,4	5,88	0,53	8,2E-08	4.079,2	144565,7	25,3
		5.033,3	6,70	0,90	1,1E-07	4.686,4	84623,8	24,7
		6.074,2	8,50	0,90	5,0E-08	5.553,8	57826,3	23,5
		3.472,0	9,63		1,3E-07	4.773,1	-230281,7	22,8
		2.431,1	9,34		6,3E-08	2.951,6	358921,8	23,0
		1.043,3	8,06		2,6E-08	1.737,2	108679,0	23,8
		175,9	3,99		6,2E-09	609,6	21306,7	26,5
		2,4	(1,00)		3,8E-09	89,2	3475,1	29,8

Remark:

Job:
Nørre Lyngby

Executed: AMS/gt

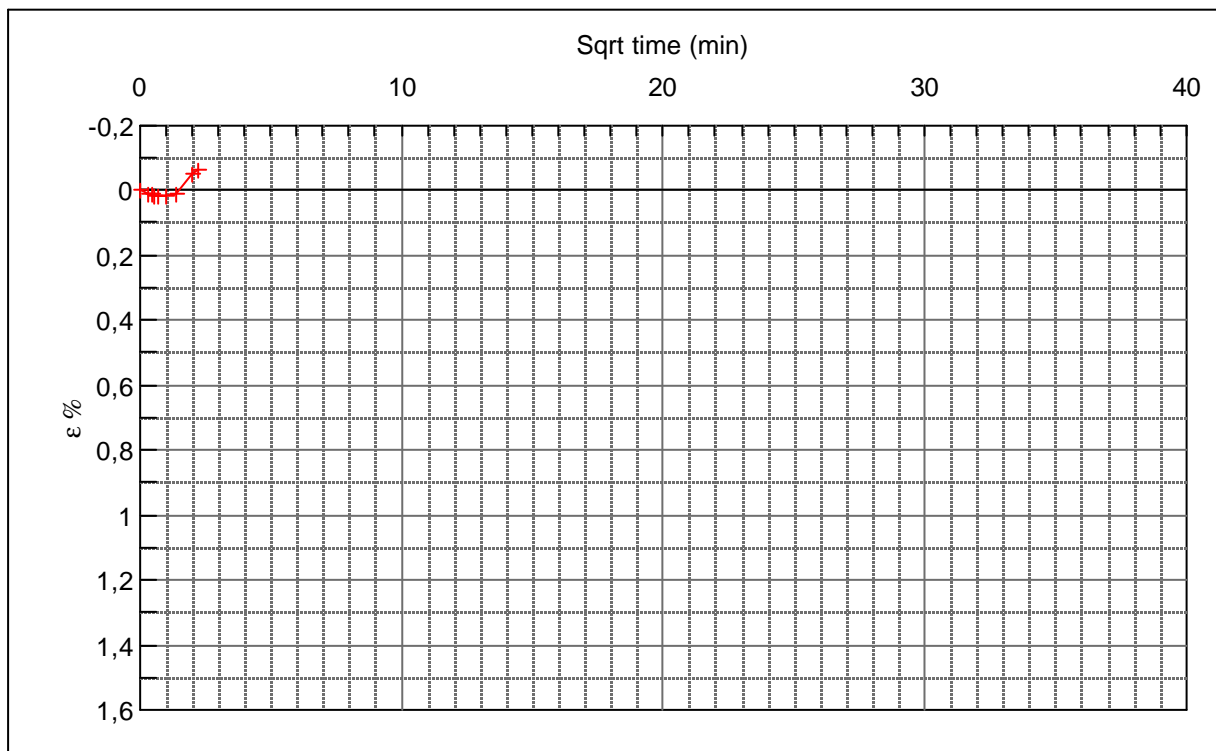
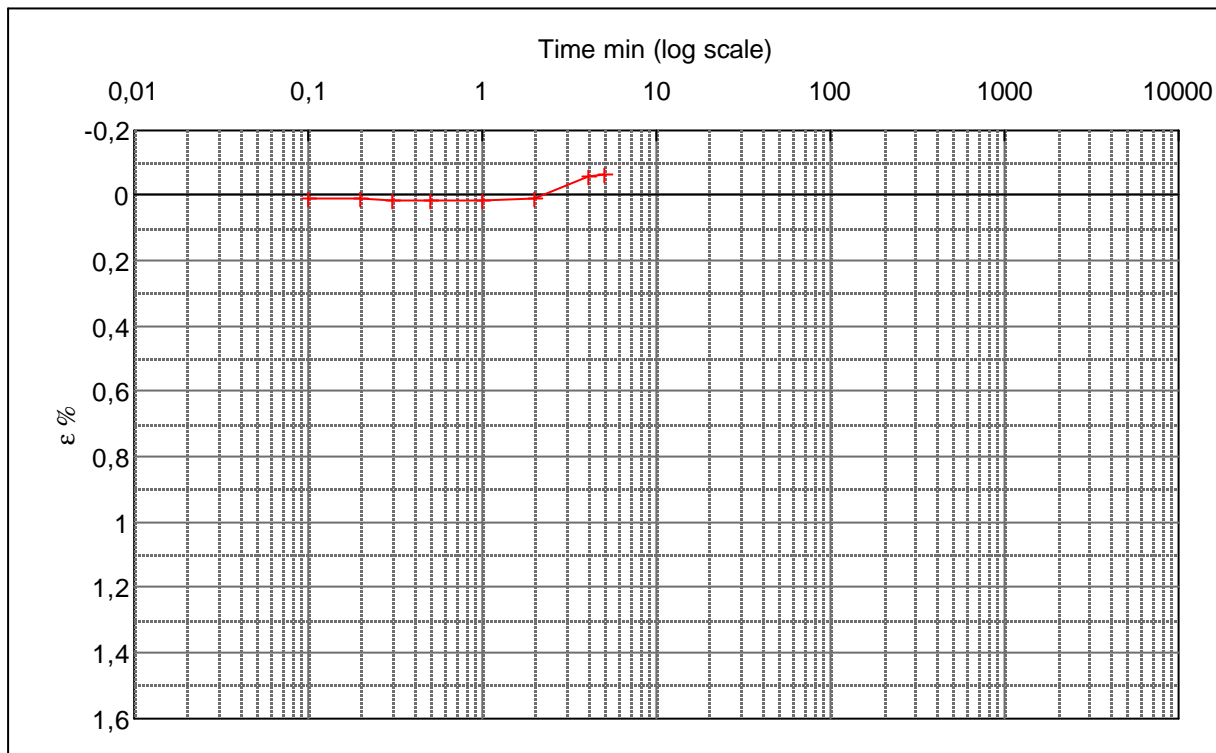
Approved:

AAU

Encl. No
12.2

Check:

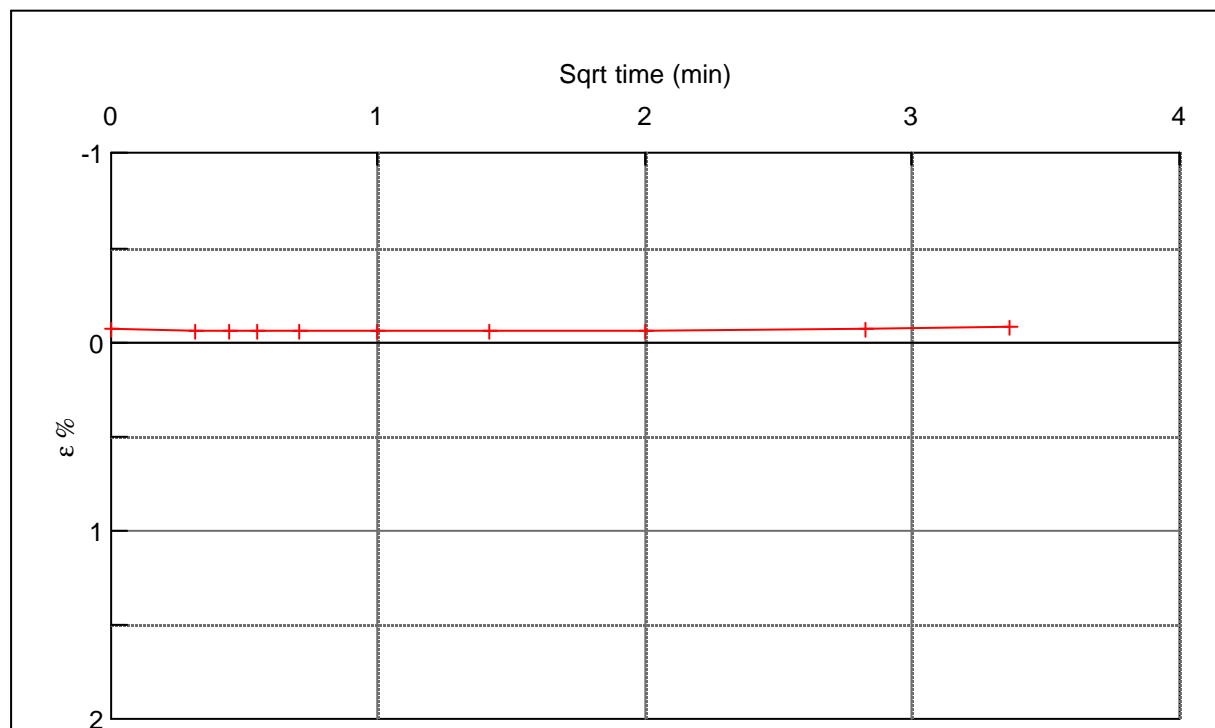
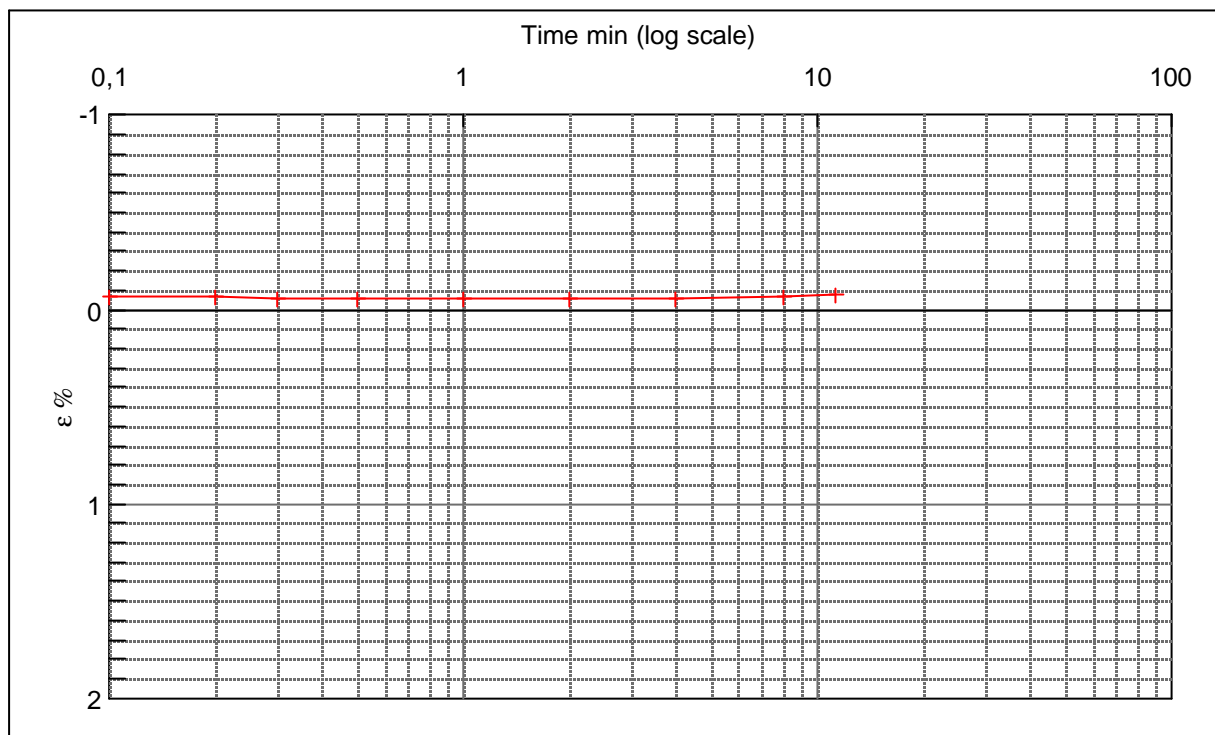
Step no	σ	kPa	ε	%	ε_i	ε_c %	ε_s	ε_{kyb}	tc in sec	K i kPa	k10 m/sec	ck10 m ² /sec
1	Before	2,43	ε_0	0,000		-0,06				(13.768)		
	After	11,10	$\varepsilon_{\sim\#}$	(0,063)								
								0				



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU
	Encl. No 12.3
Executed: AMS/gt	Check:
Approved:	

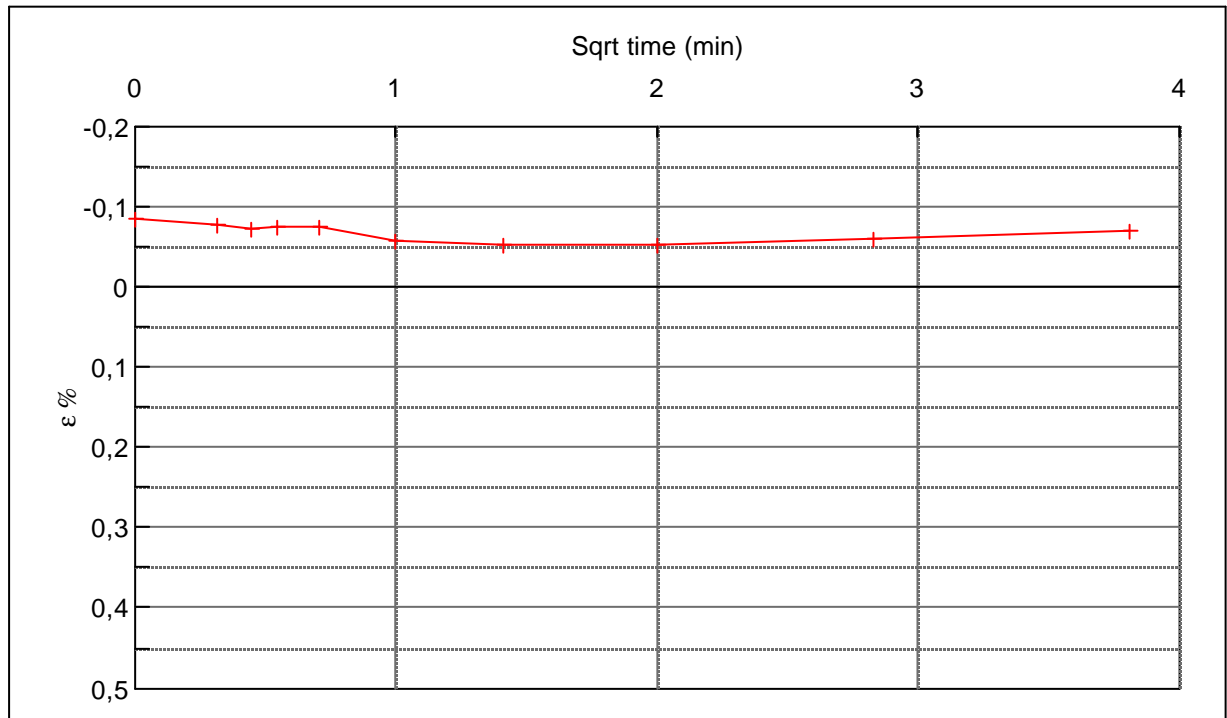
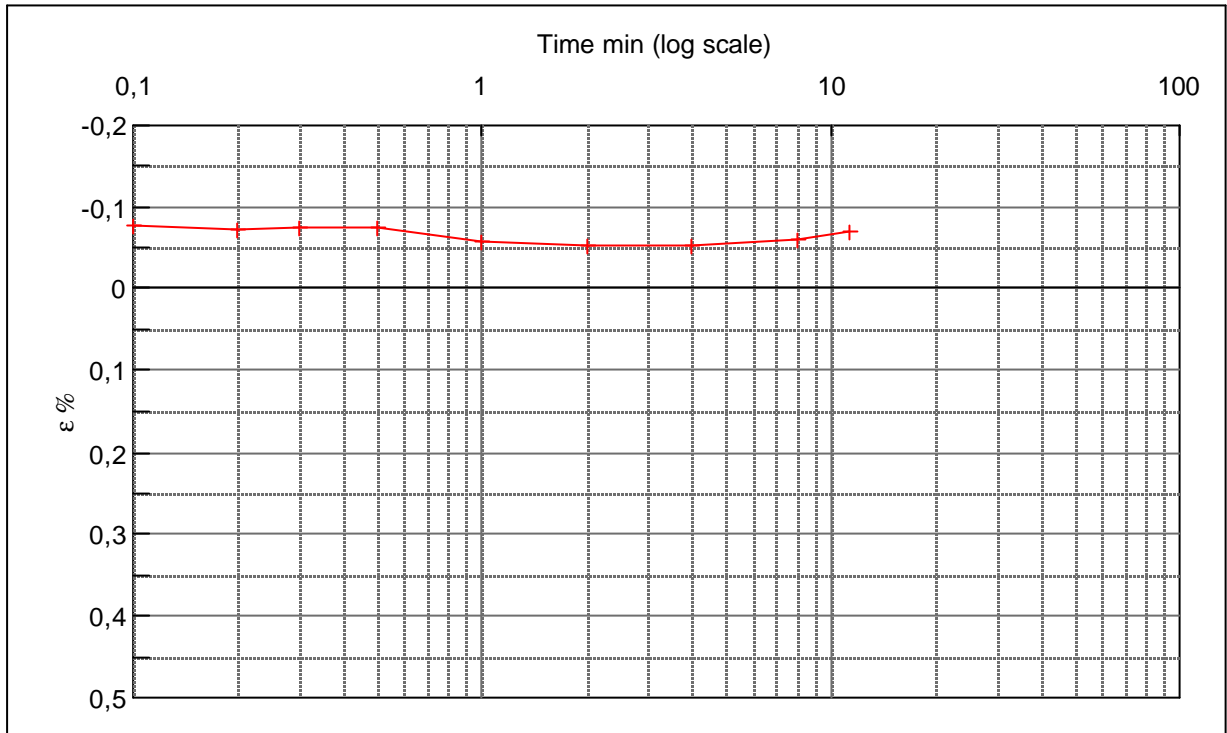
Step no	σ	kPa	ε %	ε_i	ε_c %	ε_s	ε_{kryb}	tc in sec	K i kPa	k10 m/sec	ck10 m ² /sec
2	Before	11,1	ε_0 (0,072)		-0,08				(136.957)		
	After	19,8	$\varepsilon_{-#}$ (0,078)								



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU Encl. No 12.4
Executed: AMS/gt	Check:
Approved:	

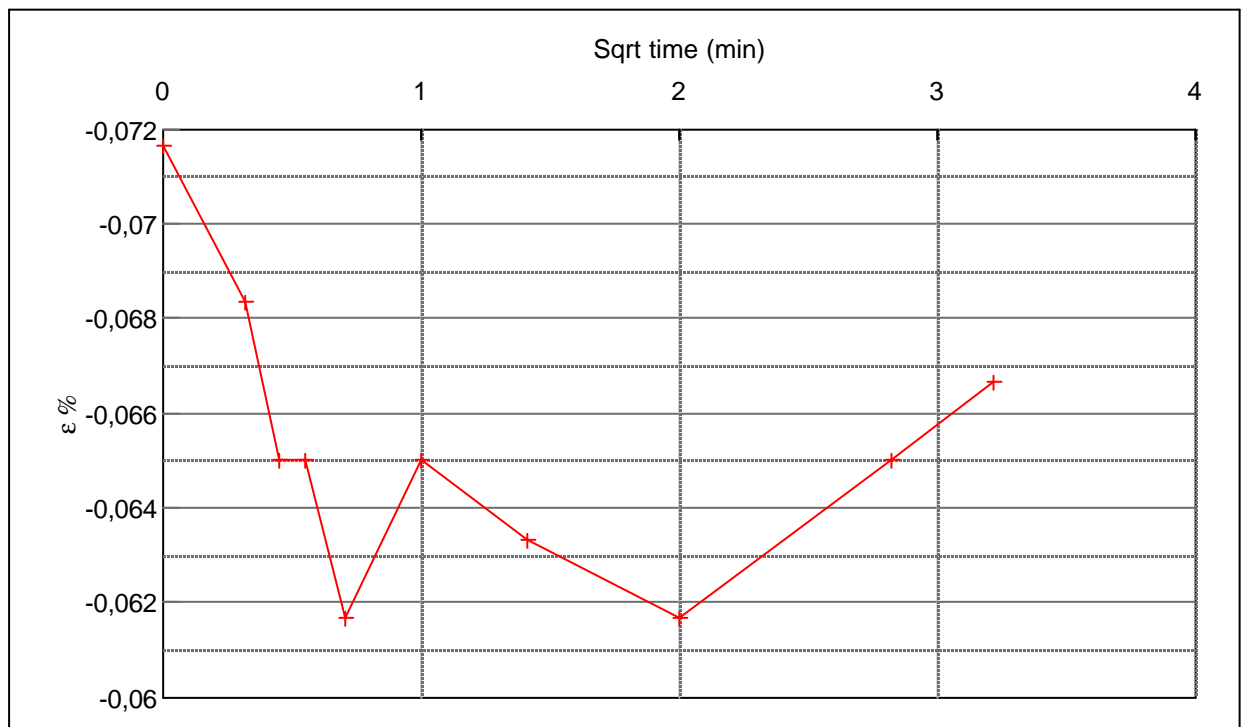
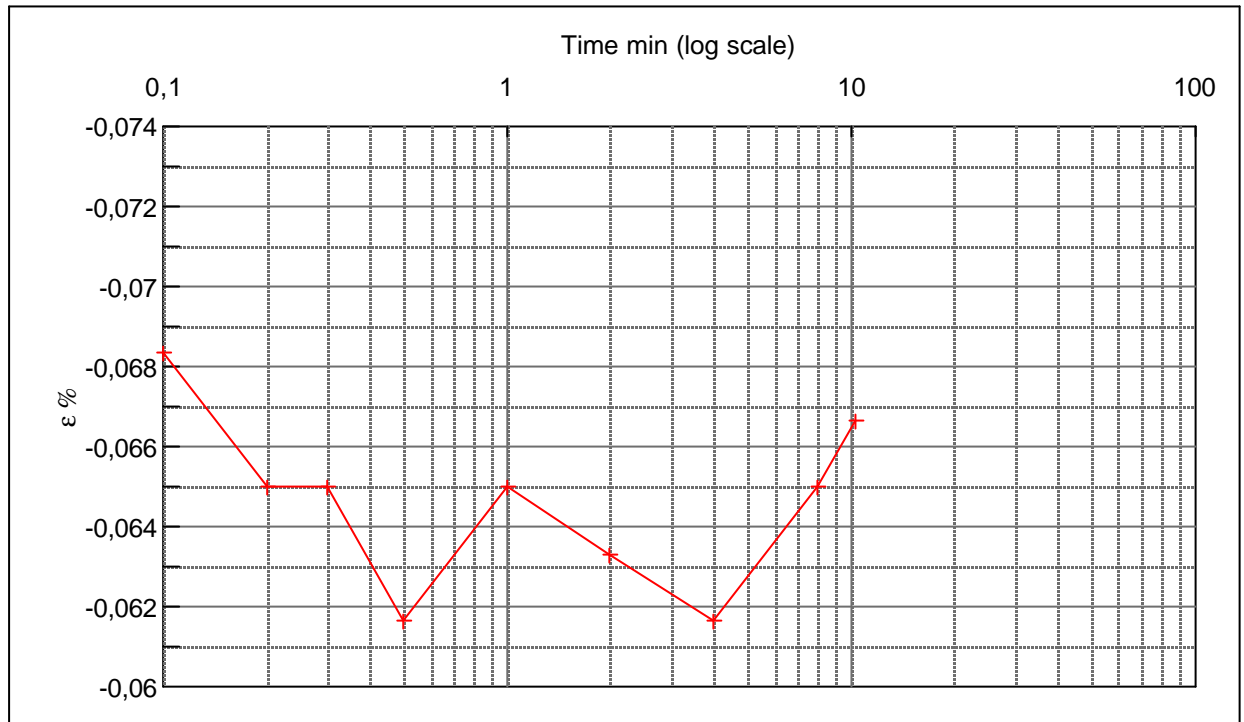
Step no 3	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	19,8	ϵ_0	(0,085)	ϵ_c	% -0,05	K i kPa	49.565
	After	37,1	$\epsilon_{\sim\#}$	(0,070)	ϵ_s		k10 m/sec	3,2E-09
					ϵ_{kyb}	-0,02	ck10 m^2/sec	1,62E-05



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU	
	Encl. No	12.5
Executed:	AMS/gt	Check:
Approved:		

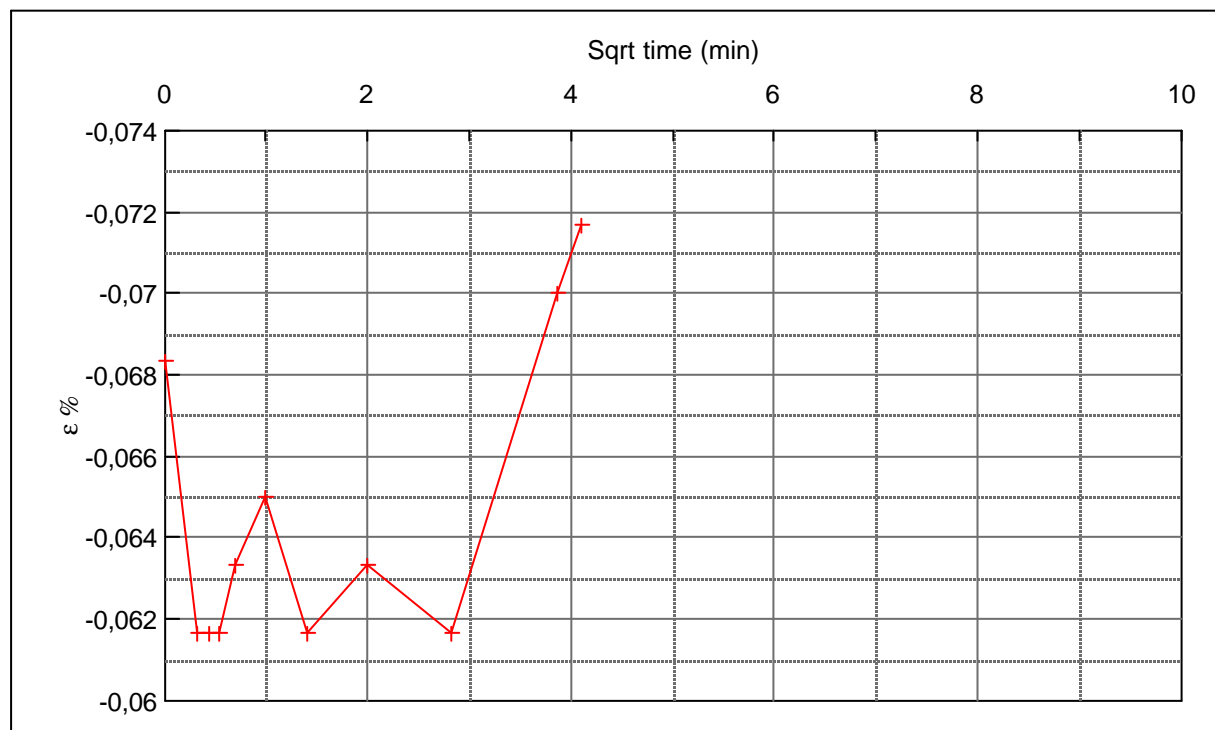
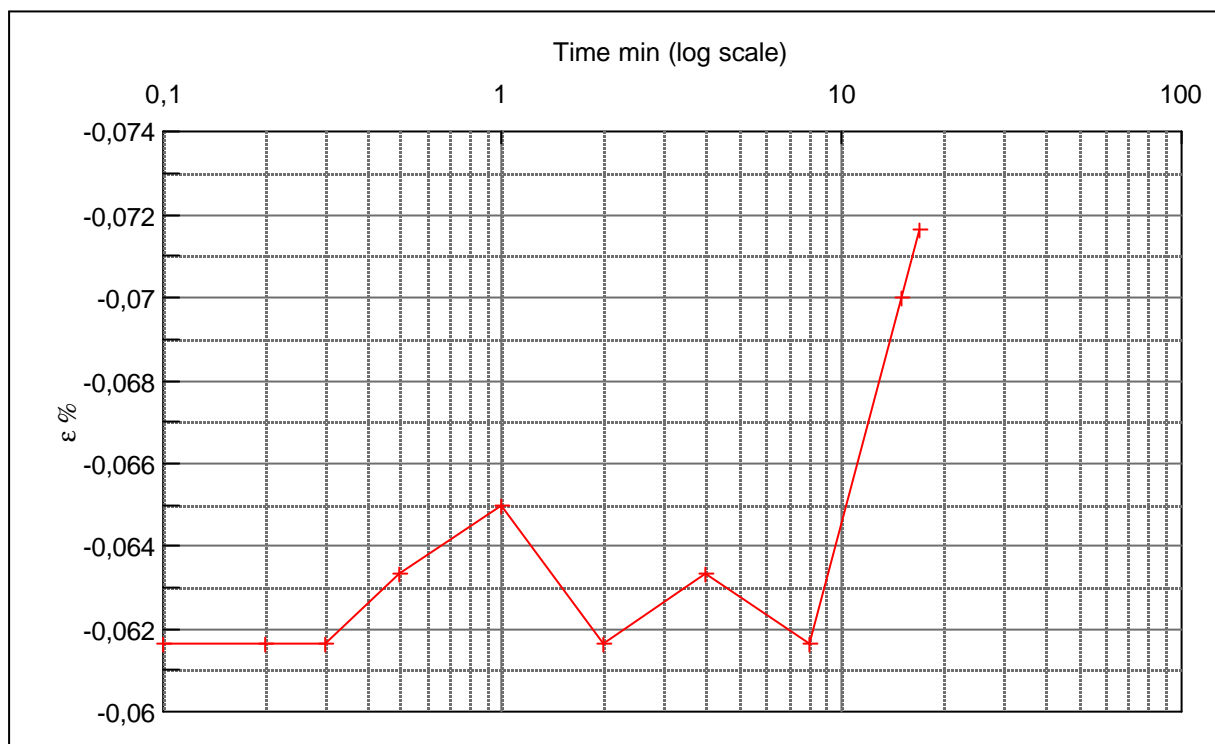
Step no 4	σ	kPa	ϵ	%	ϵ_i		tc in sec	60
	Before	37,1	ϵ_0	(0,072)	ϵ_c	% -0,062	K i kPa	179.461
	After	54,5	$\epsilon_{\sim\#}$	(0,067)	ϵ_s		k10 m/sec	8,8E-10
					ϵ_{kryb}	-0,005	ck10 m ² /sec	1,62E-05



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.6
Executed:	AMS/gt	Check:
Approved:		

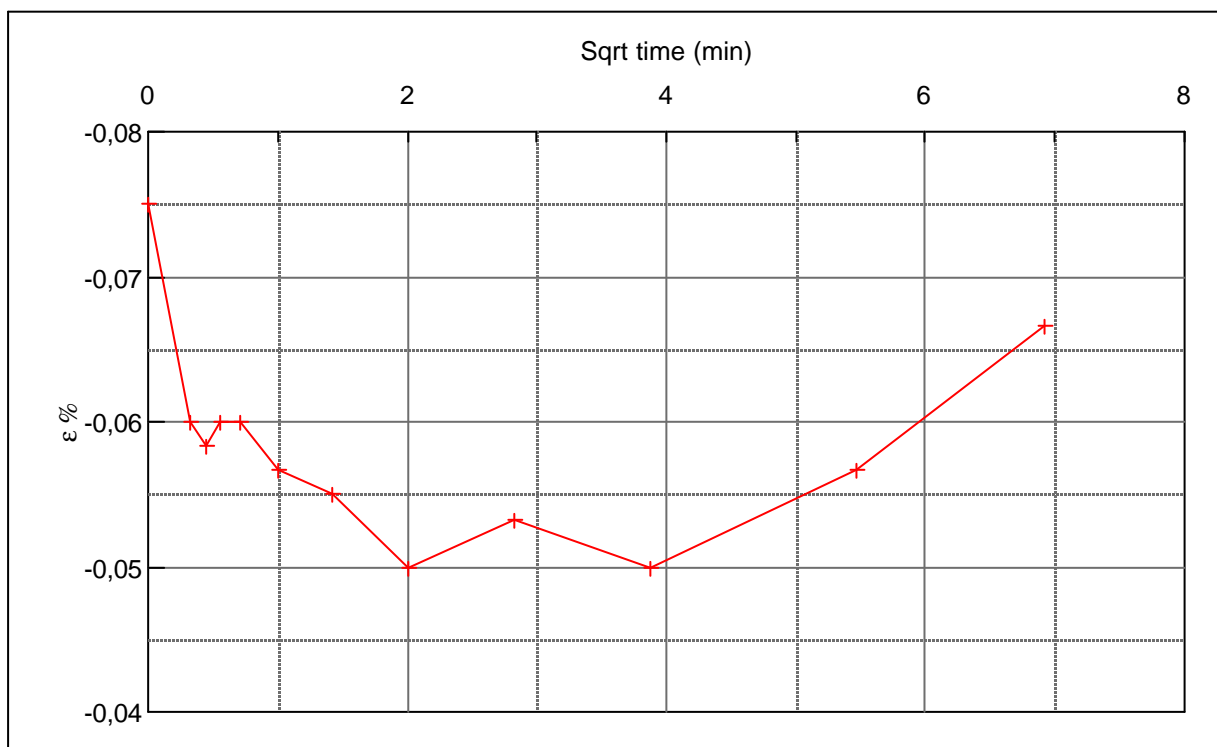
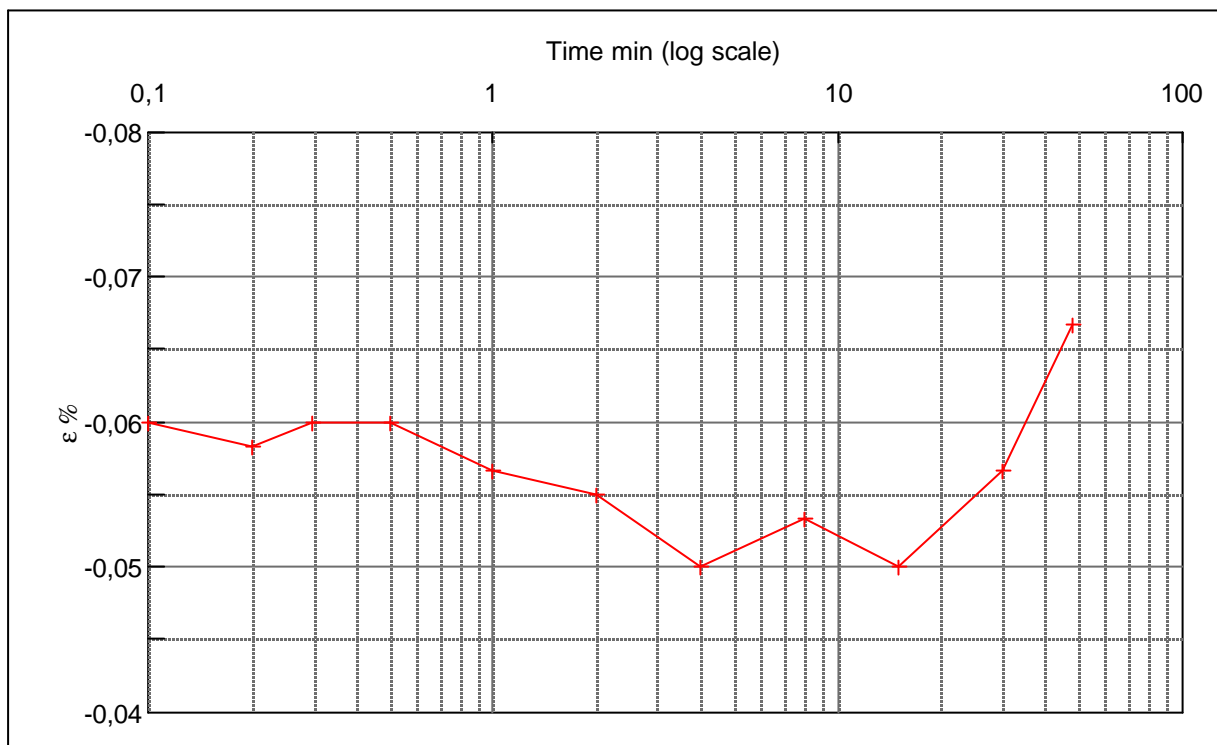
Step no 5	σ	kPa	ε	%	ε_i	tc in sec 15	K i kPa 273.914	k10 m/sec 2,3E-09	ck10 m^2/sec 6,47E-05	
	Before	54,5	ε_0	(0,07)	ε_c %					-0,06
	After	71,8	$\varepsilon_{-#}$	(0,07)	ε_s					
										ε_{kryb}



Material: Clay, Eemian, Interglacial			
Bor no :	1	Depth:	58.8 m.b.s
Lab. no:	P 7	Insitu stress	~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.7
Executed:	AMS/gt	Check:
Approved:		

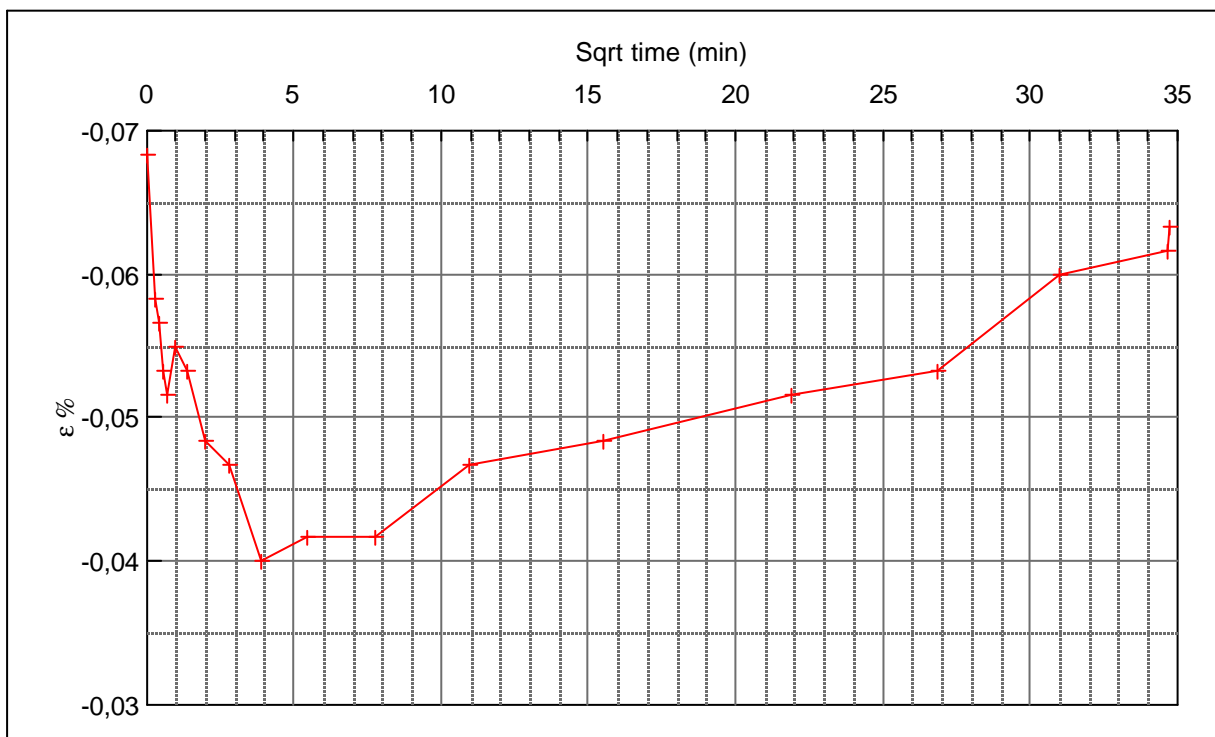
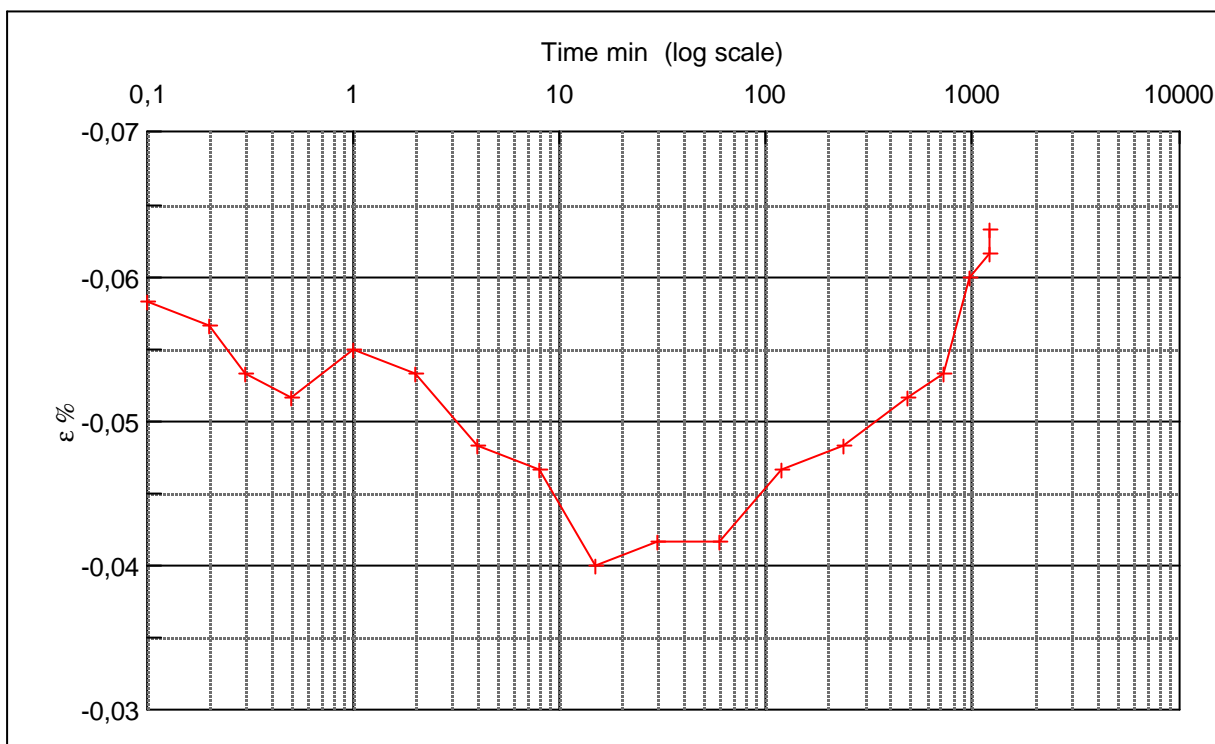
Step no 6	σ	kPa	ϵ	%	ϵ_i		tc in sec	240
	Before	71,8	ϵ_0	(0,08)	ϵ_c %	-0,05	K i kPa	138.783
	After	106,5	$\epsilon_{\sim\#}$	(0,07)	ϵ_s		k10 m/sec	2,9E-10
					ϵ_{kryb}	-0,02	ck10 m ² /sec	4,04E-06



Material: Clay, Eemian, Interglacial			
Bor no :	1	Depth:	58.8 m.b.s
Lab. no:	P 7	Insitu stress	~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.8
Executed:	AMS/gt	Check:
Approved:		

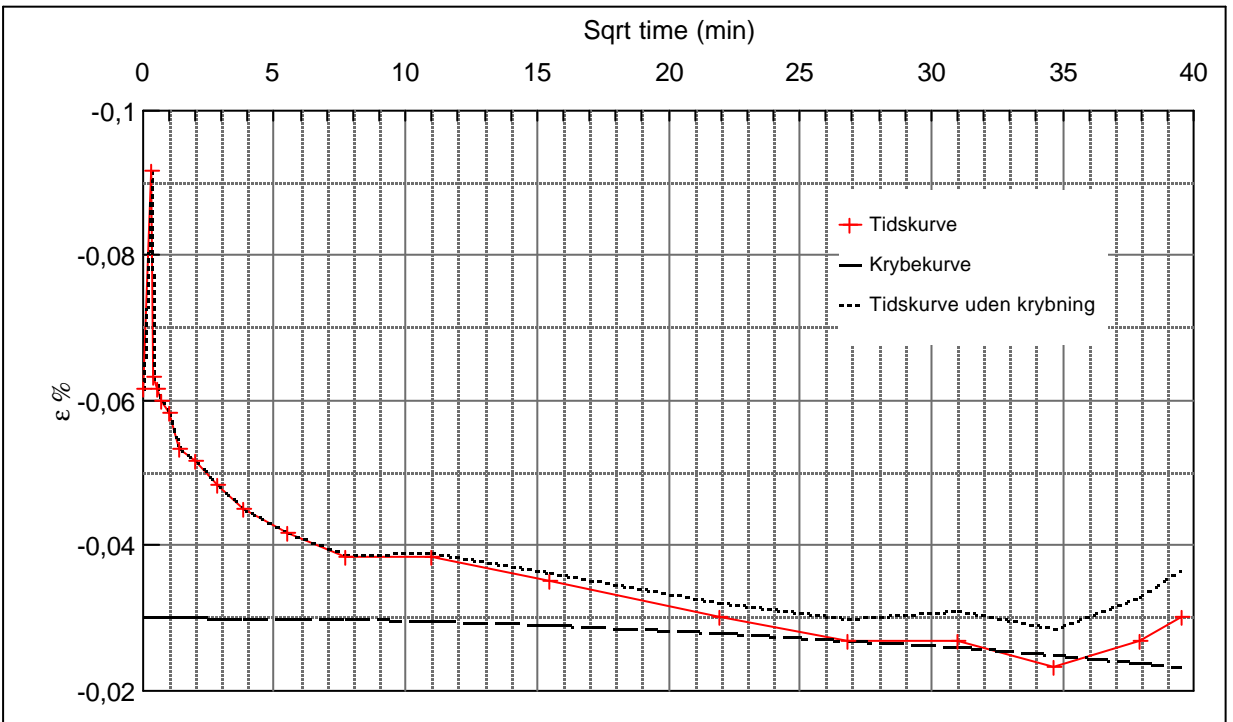
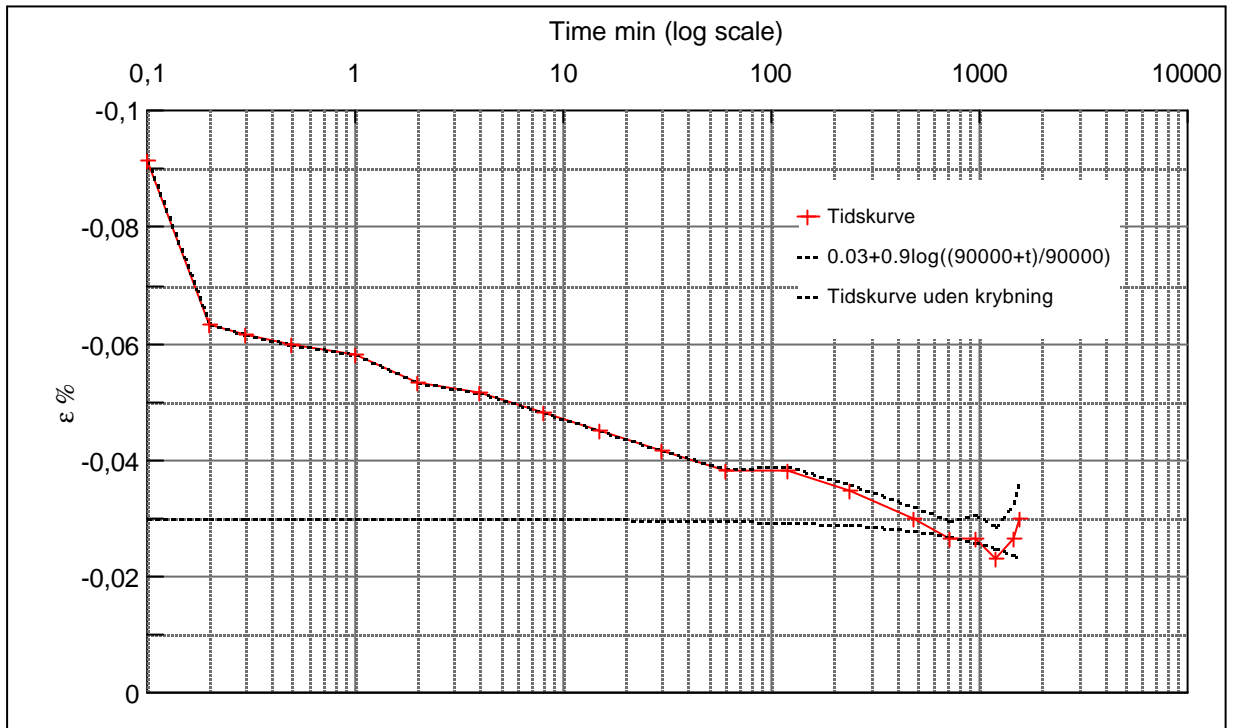
Step no 7	σ	kPa	ϵ	%	ϵ_i	tc in sec 960 K i kPa 122.456 k10 m/sec 8,1E-11 ck10 m ² /sec 1,01E-06
	Before	106,5	ϵ_0	(0,07)	ϵ_c %	
	After	141,2	$\epsilon_{-#}$	(0,06)	ϵ_s	
					ϵ_{kryb}	(0,02)



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU
	Encl. No 12.9
Executed: AMS/gt	Check:
Approved:	

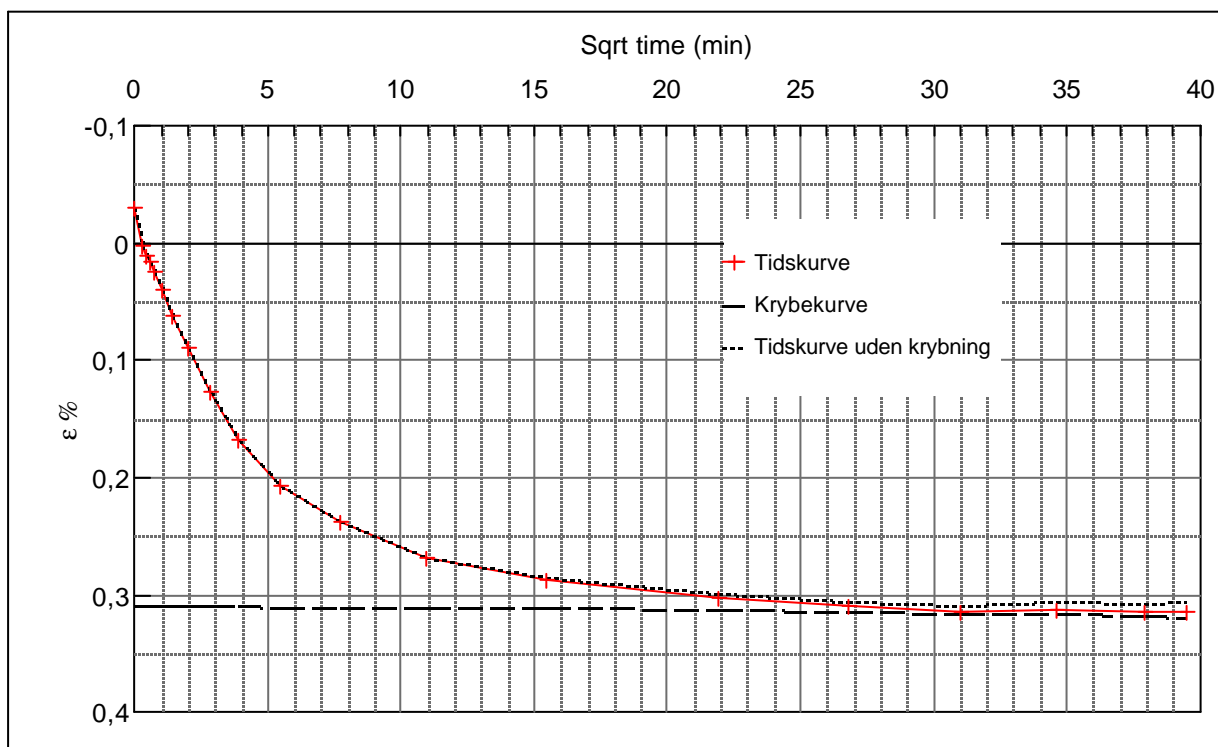
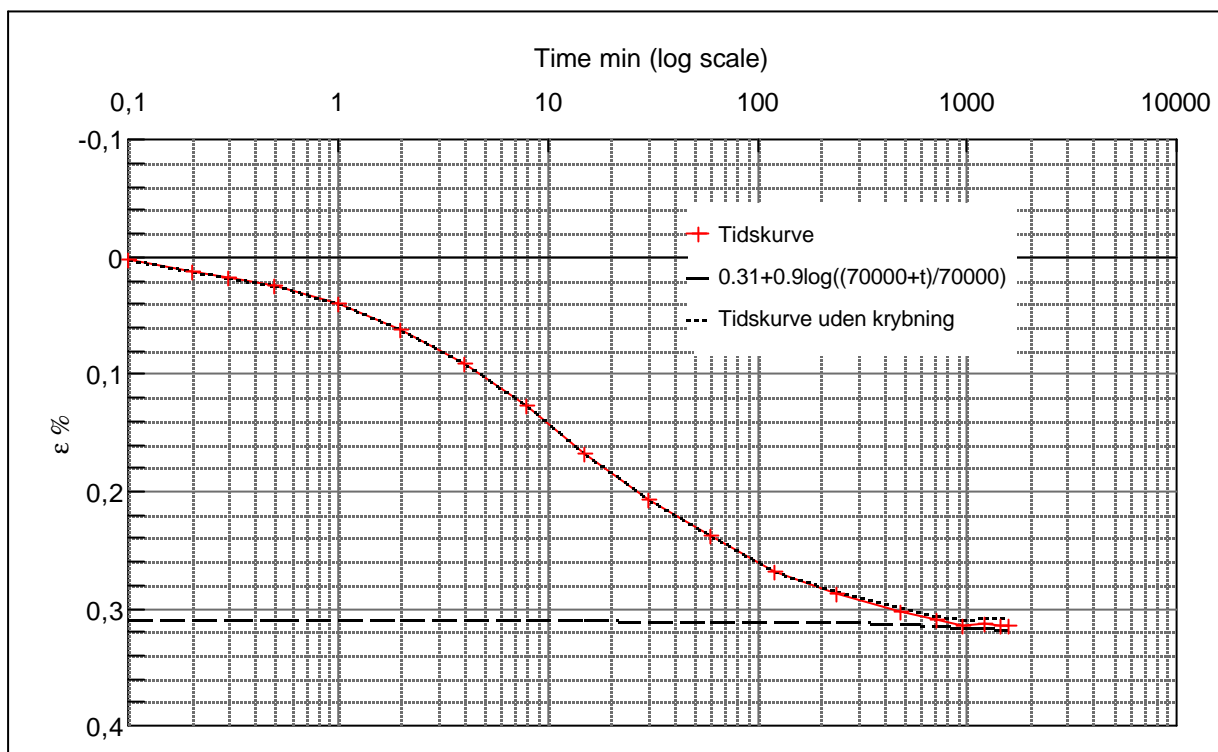
Step no 8	σ	kPa	ϵ	%	ϵ_i		tc in sec	3840
	Before	141,2	ϵ_0	(0,06)	ϵ_c	% -0,03	K i kPa	109.566
	After	175,9	$\epsilon_{\sim\#}$	(0,03)	ϵ_s		k10 m/sec	2,3E-11
					ϵ_{kryb}		ck10 m ² /sec	2,53E-07



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 12.10
Approved:		Check:

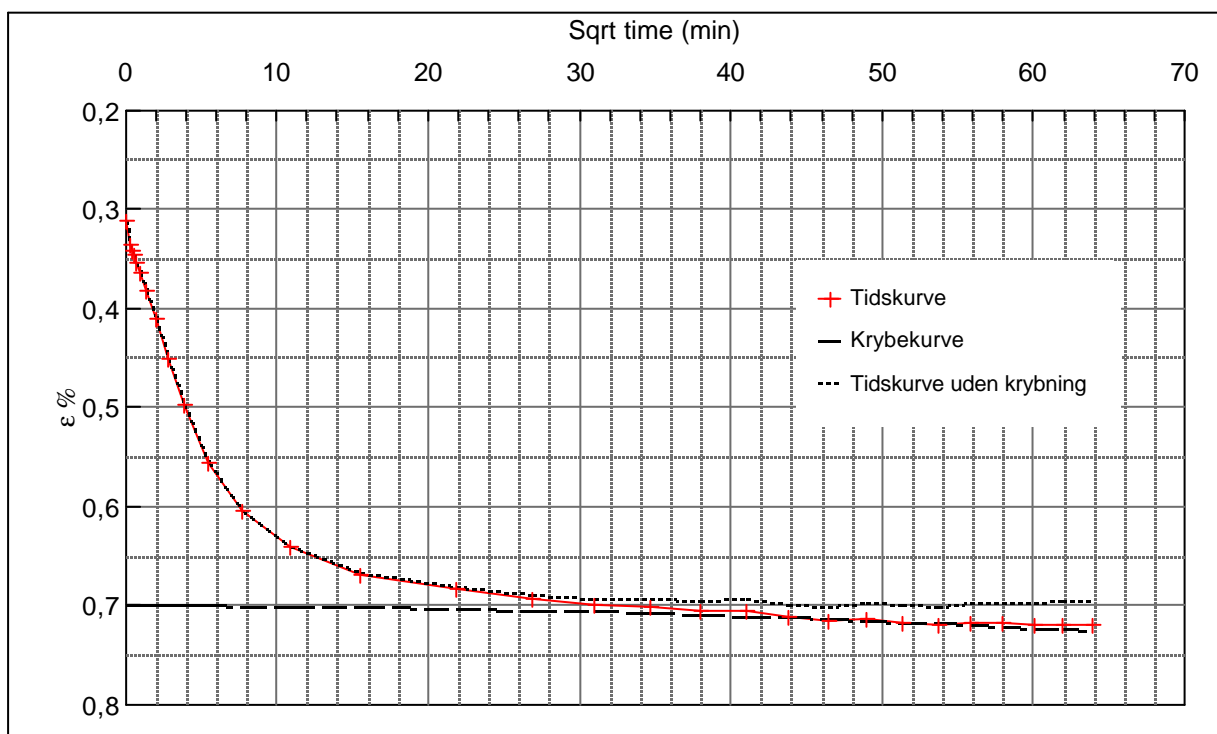
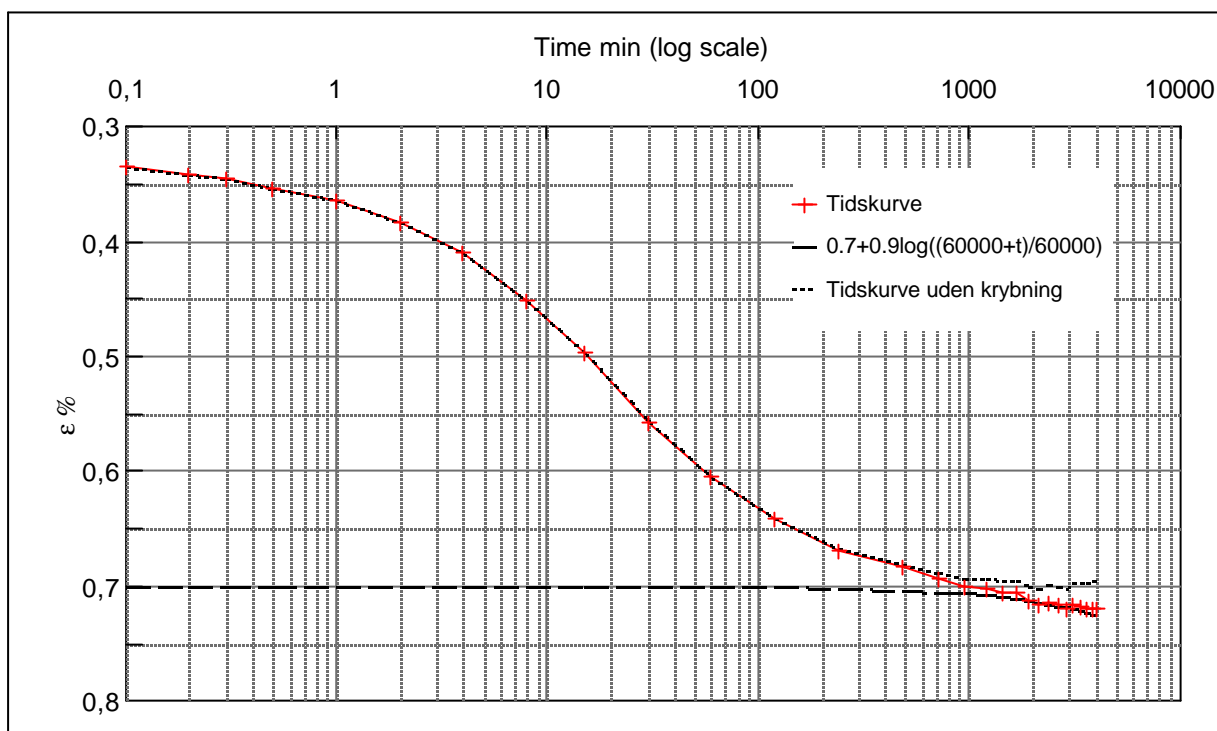
Step no 9	σ	kPa	ϵ	%	ϵ_i	tc in sec	2940
	Before	175,9	ϵ_0	(0,03)	ϵ_c %	K i kPa	51.023
	After	349,4	$\epsilon_{\sim\#}$	0,32	ϵ_s	k10 m/sec	6,3E-11
					ϵ_{kryb}	ck10 m^2/sec	3,30E-07



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 12.11
Approved:		Check:

Step no 10	σ	kPa	ϵ	%	ϵ_i		tc in sec	3840
	Before	349,4	ϵ_0	0,31	ϵ_c %	0,7	K i kPa	44.673
	After	522,9	$\epsilon_{\sim\#}$	0,72	ϵ_s	0,04	k10 m/sec	5,5E-11
					ϵ_{kryb}	0,02	ck10 m ² /sec	2,53E-07



Material:
Clay, Eemian, Interglacial

Bor no : 1
Lab. no: P 7

Depth: 58.8 m.b.s
Insitu stress ~550 kPa

Job:
Nørre Lyngby

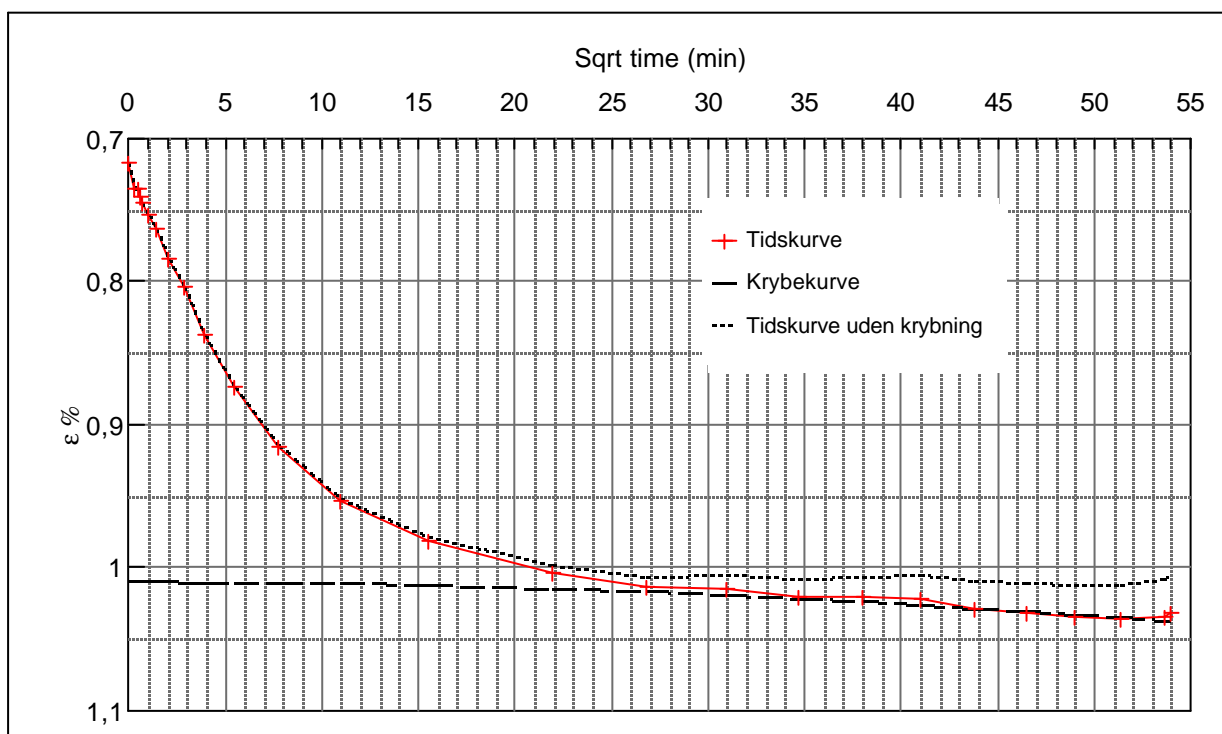
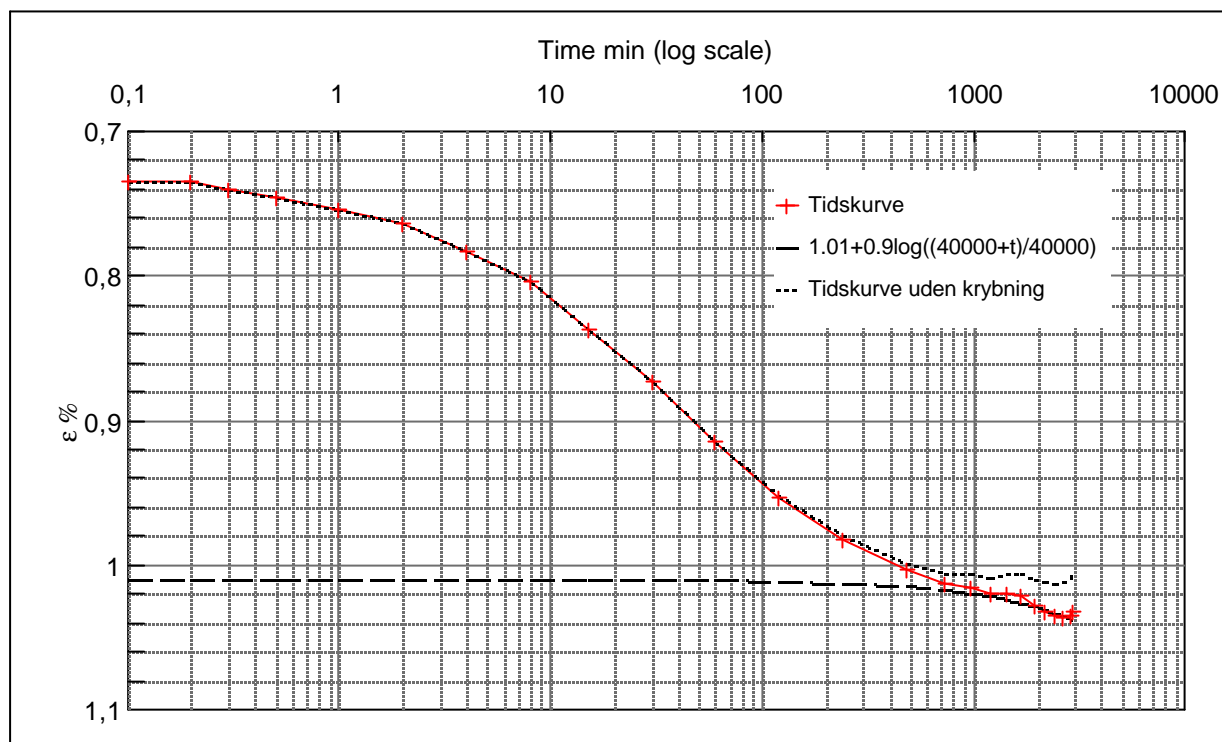
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Approved:

AAU

Encl. No
12.12

Check:

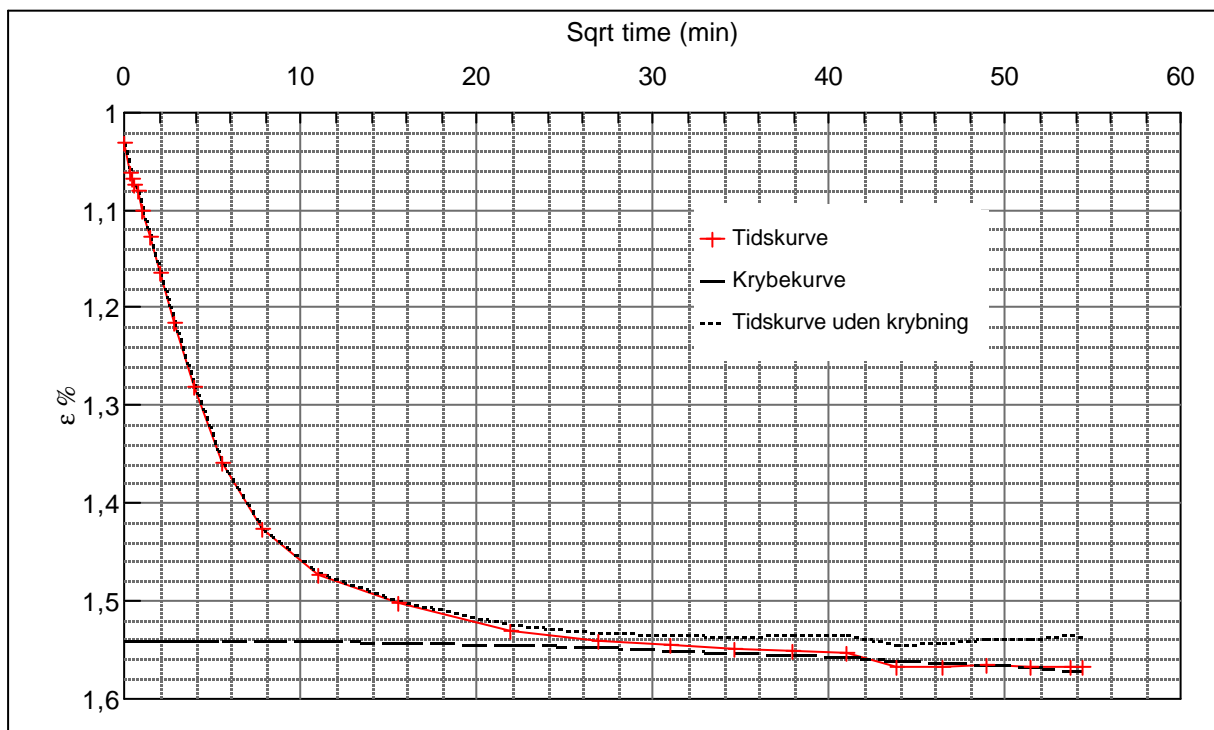
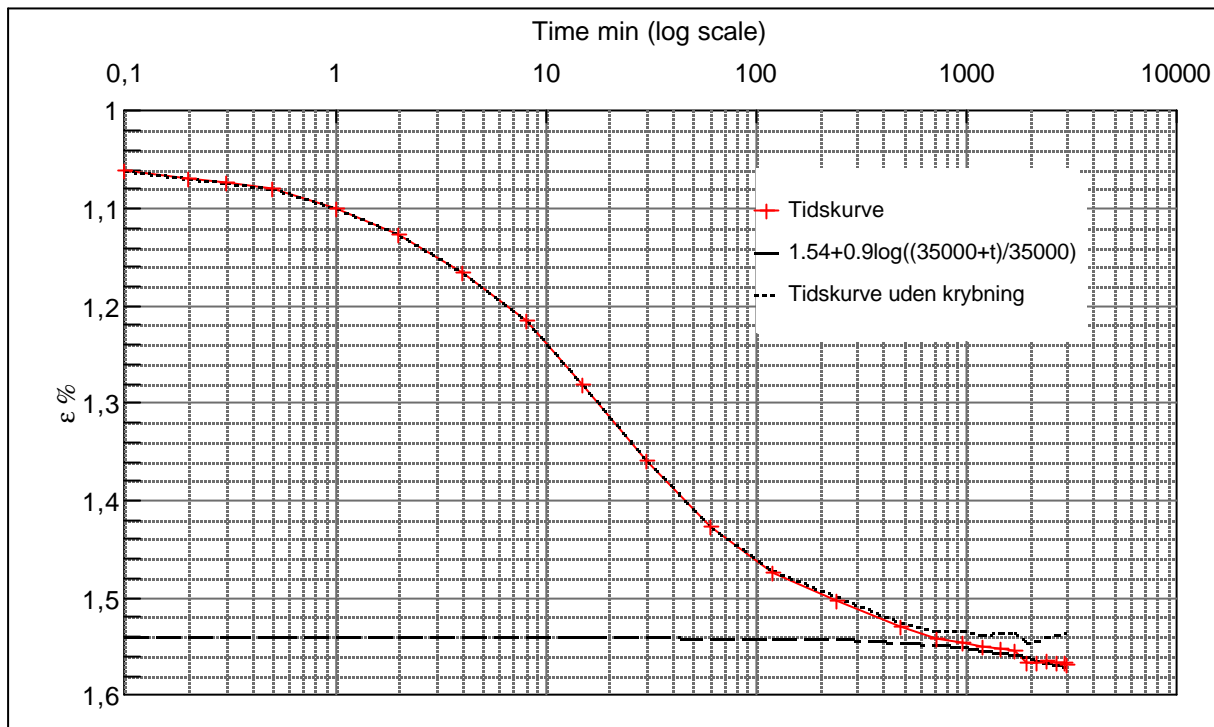
Step no 11	σ	kPa	ε	%	ε_i		tc in sec	5415
	Before	522,9	ε_0	0,72	ε_c %	1,01	K i kPa	59.141
	After	696,3	$\varepsilon_{-#}$	1,03	ε_s	0,04	k10 m/sec	3,0E-11
					ε_{kryb}	0,02	ck10 m ² /sec	1,79E-07



Material: Clay, Eemian, Interglacial			
Bor no :	1	Depth:	58.8 m.b.s
Lab. no:	P 7	Insitu stress	~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.13
Executed:	AMS/gt	Check:
Approved:		

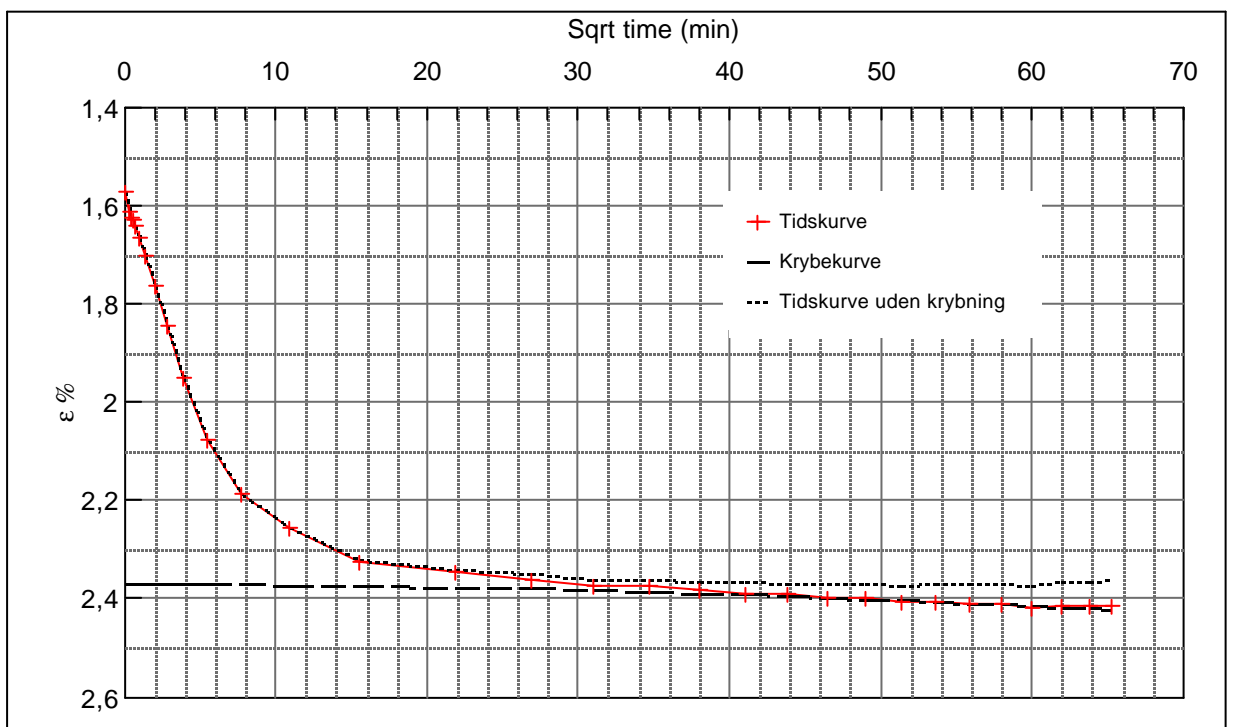
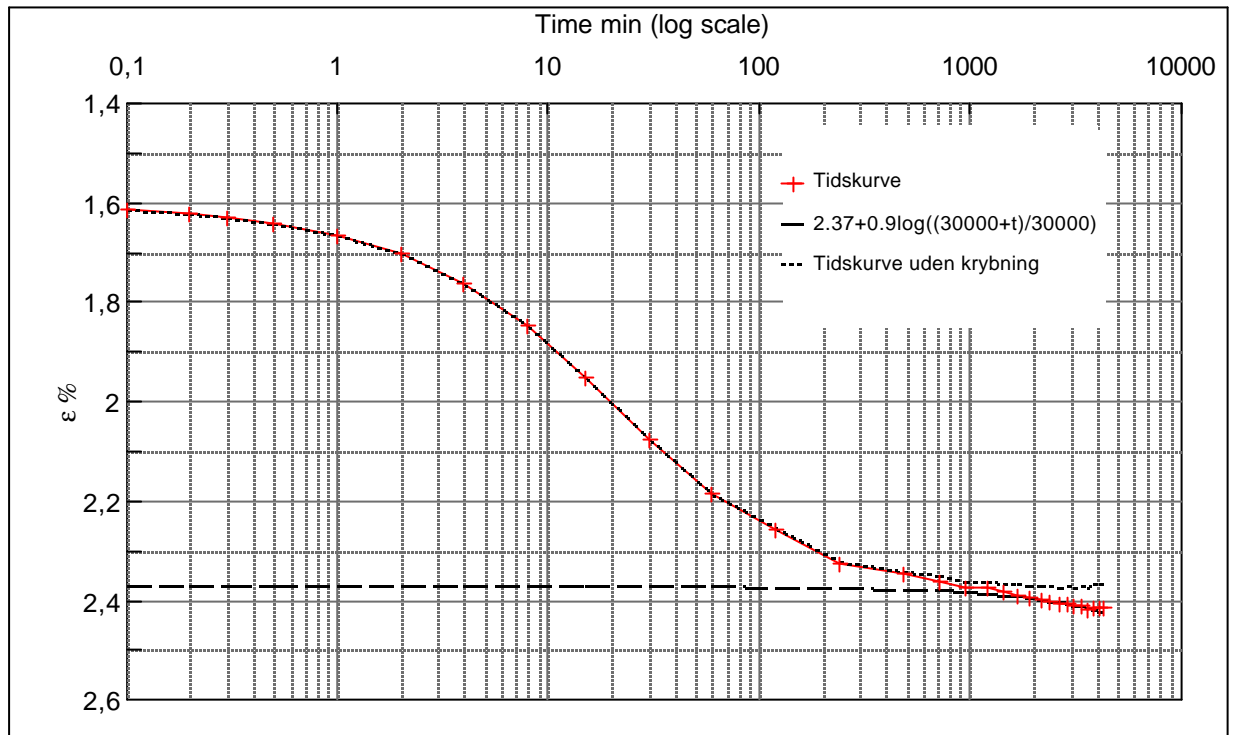
Step no 12	σ	kPa	ε	%	ε_i		tc in sec	3840
	Before	696,3	ε_0	1,03	ε_c %	1,54	K i kPa	68.031
	After	1.043,3	$\varepsilon_{-#}$	1,57	ε_s	0,04	k10 m/sec	3,6E-11
					ε_{kryb}	0,028	ck10 m ² /sec	2,53E-07



Material: Clay, Eemian, Interglacial			
Bor no :	1	Depth:	58.8 m.b.s
Lab. no:	P 7	Insitu stress	~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.14
Executed:	AMS/gt	Check:
Approved:		

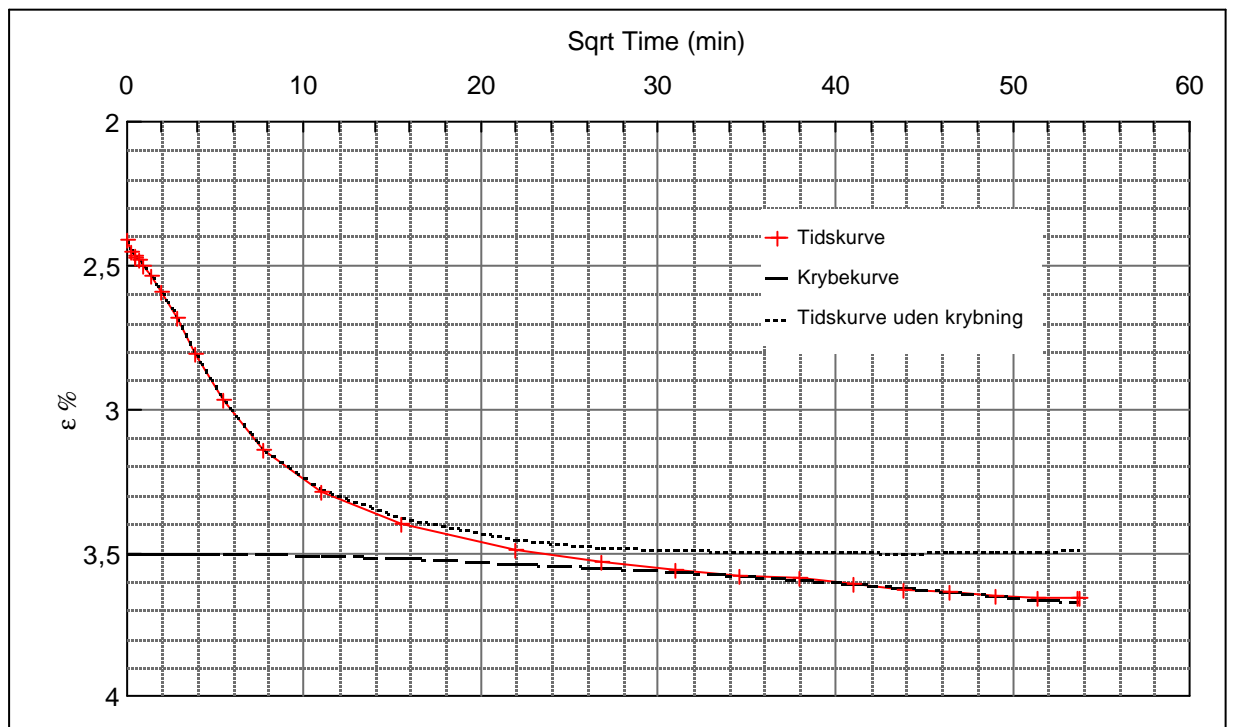
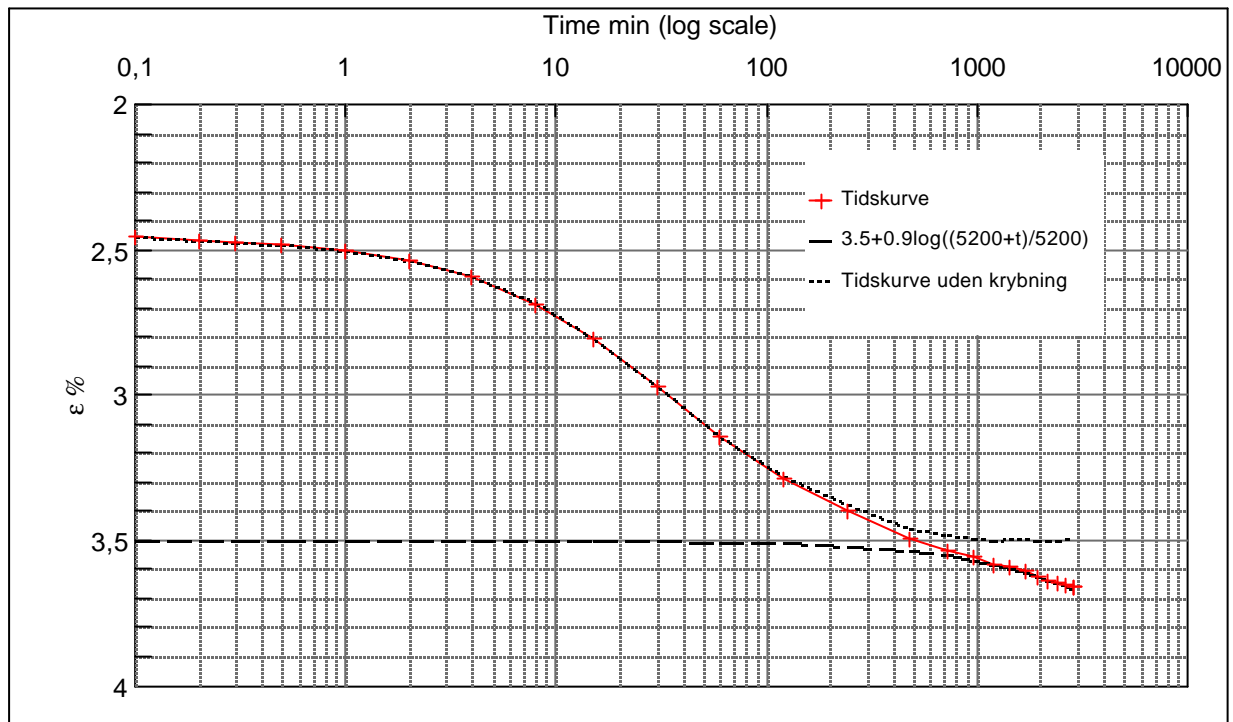
Step no 13	σ	kPa	ϵ	%	ϵ_i		tc in sec	3840
	Before	1.043,3	ϵ_0	1,57	ϵ_c %	2,37	K i kPa	86.559
	After	1.737,2	$\epsilon_{\sim\#}$	2,41	ϵ_s	0,08	k10 m/sec	2,9E-11
					ϵ_{kryb}	0,04	ck10 m^2/sec	2,53E-07



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 12.15
Approved:		Check:

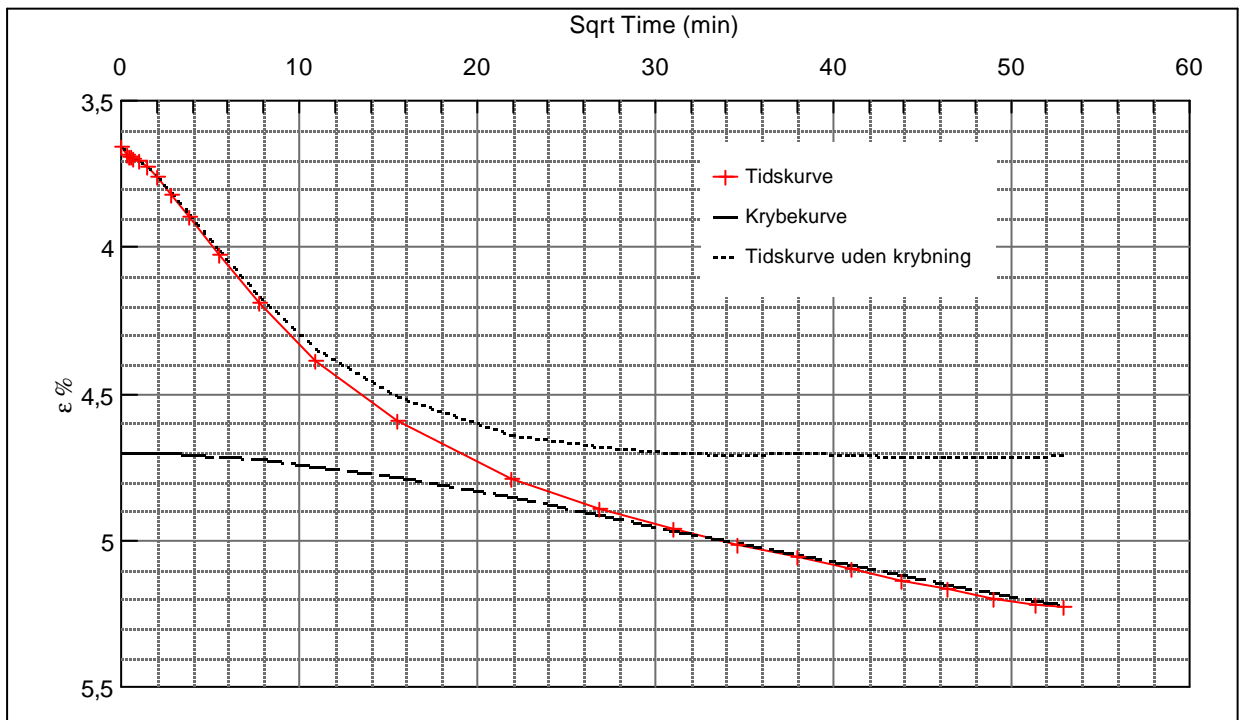
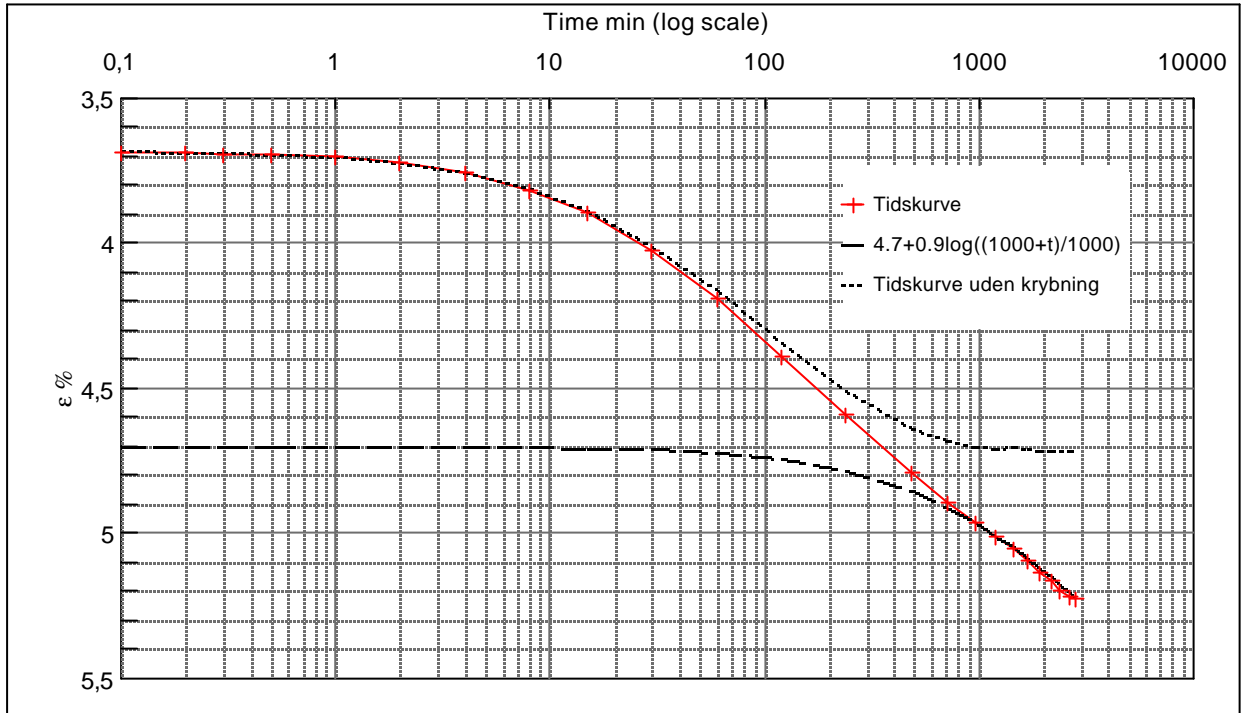
Step no 14	σ	kPa	ε	%	ε_i		tc in sec	6615
	Before	1.737,2	ε_0	2,41	ε_c %	3,5	K i kPa	95.786
	After	2.778,1	$\varepsilon_{\sim\#}$	3,66	ε_s	0,2	k10 m/sec	1,5E-11
					ε_{kryb}	0,16	ck10 m^2/sec	1,47E-07



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU
	Encl. No 12.16
Executed: AMS/gt	Check:
Approved:	

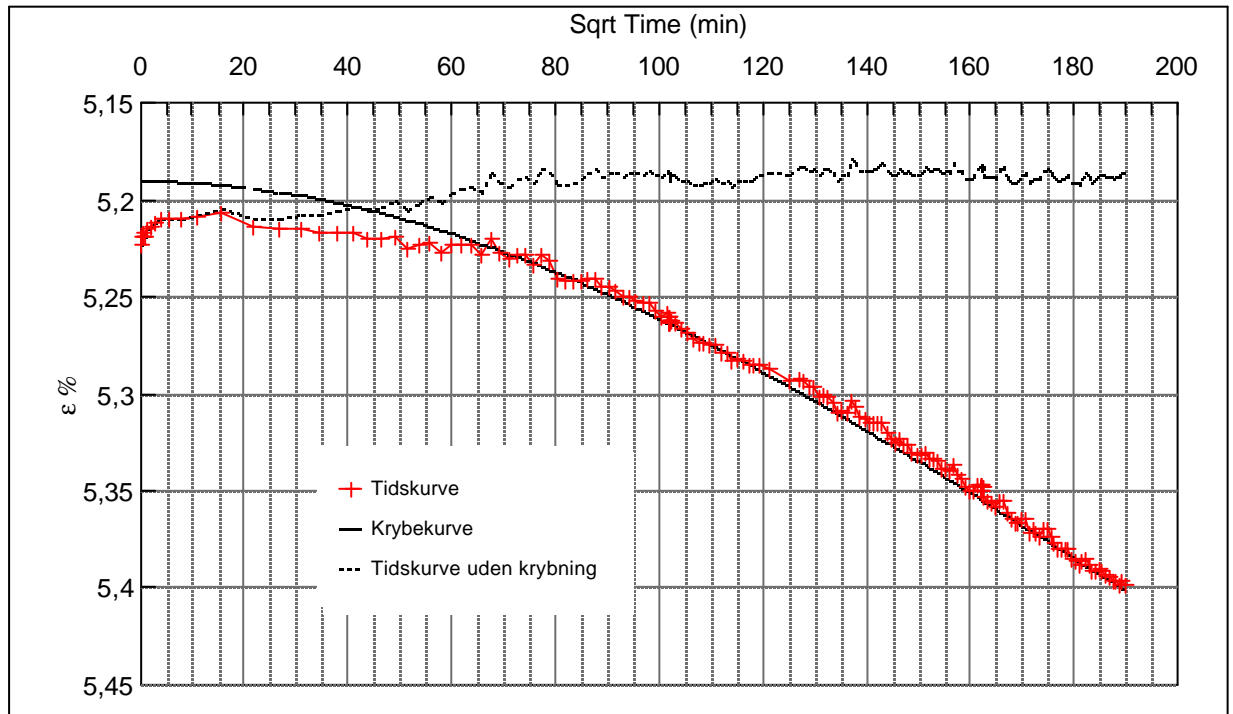
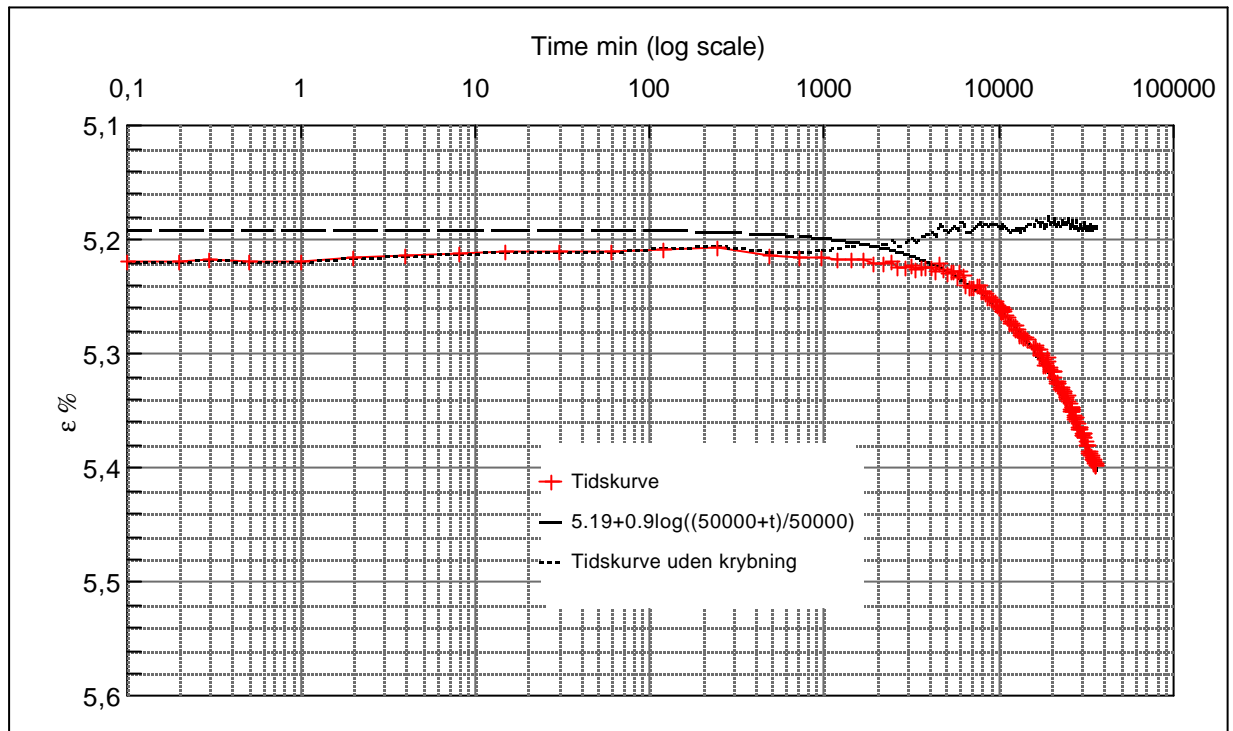
Step no 15	σ	kPa	ε	%	ε_i	tc in sec	11760
	Before	2.778,1	ε_0	3,66	ε_c %	K i kPa	99.924
	After	3.819,0	$\varepsilon_{\sim\#}$	5,23	ε_s	k10 m/sec	8,1E-12
					ε_{kyb}	ck10 m^2/sec	8,25E-08



Material: Clay, Eemian, Interglacial			
Bor no :	1	Depth:	58.8 m.b.s
Lab. no:	P 7	Insitu stress	~550 kPa

Job: Nørre Lyngby		AAU	
Executed: AMS/gt		Encl. No 12.17	
Approved:		Check:	

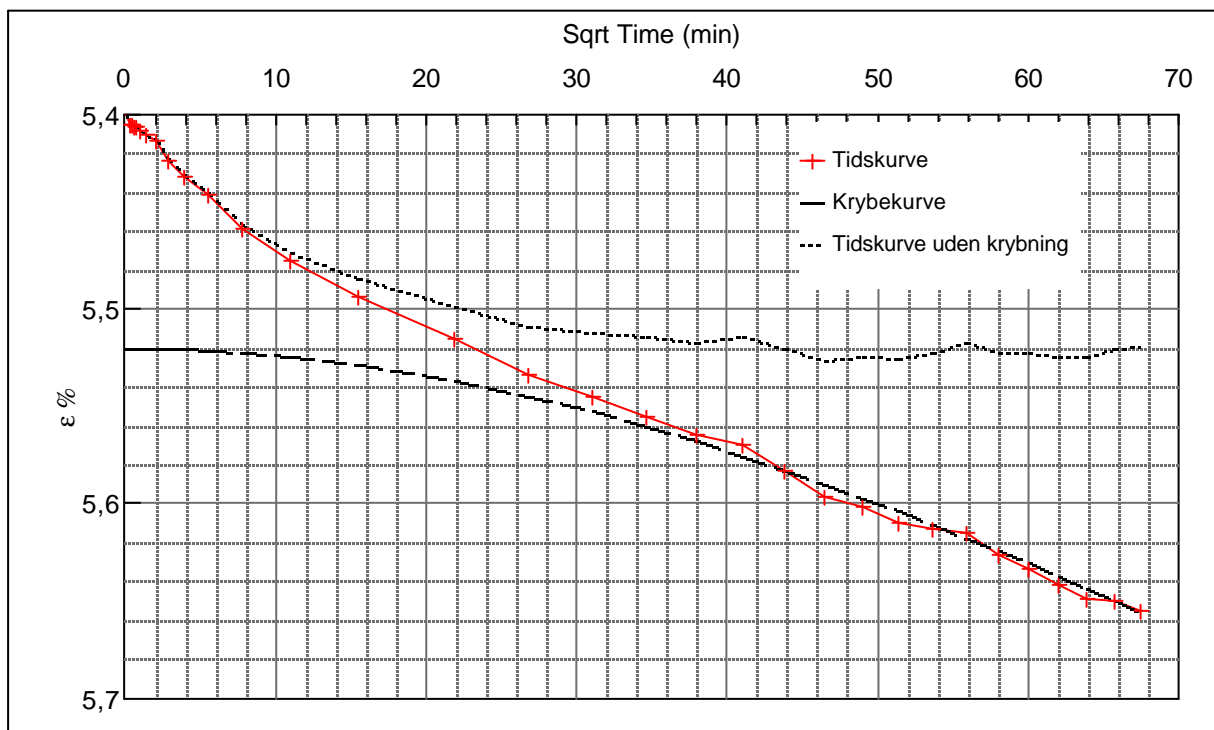
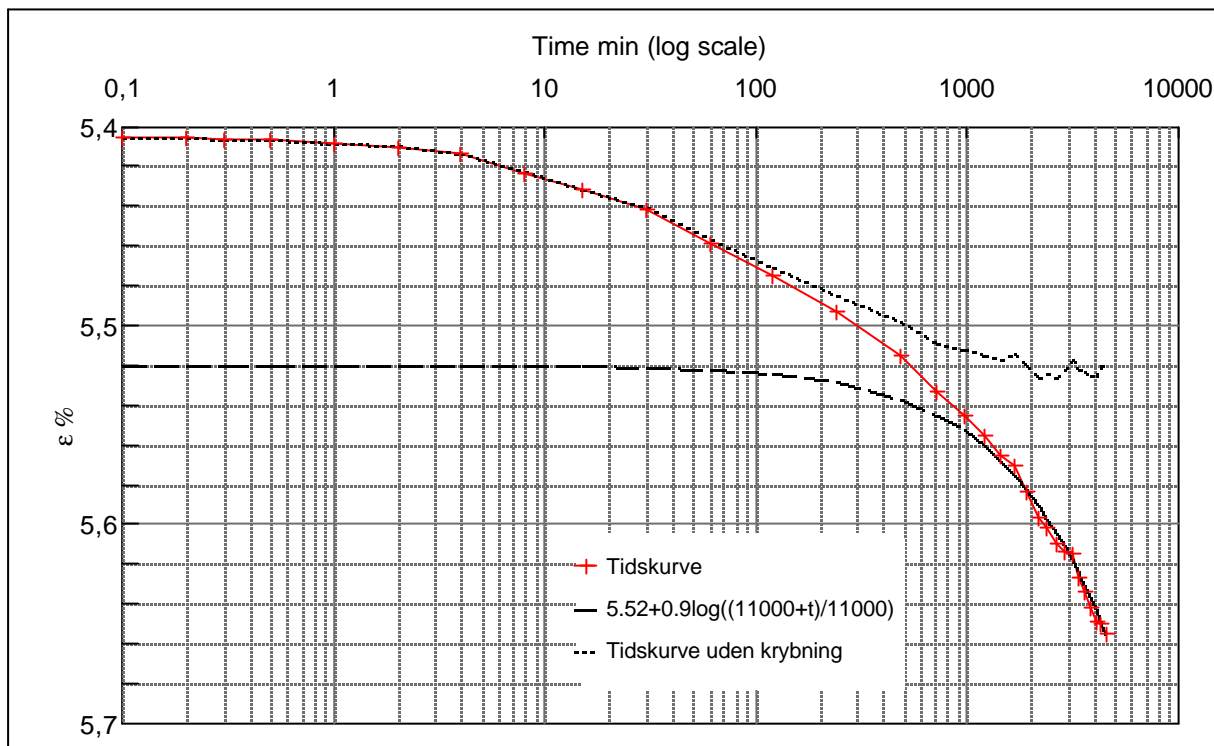
Step no 16	σ	kPa	ε	%	ε_i		tc in sec	6000
	Before	3.819,0	ε_0	5,22	ε_c %	5,19	K i kPa	1.040.873
	After	3.472,0	$\varepsilon_{\sim\#}$	5,40	ε_s	0,36	k10 m/sec	1,5E-12
					ε_{kryb}	0,21	ck10 m ² /sec	1,62E-07



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.18
Executed:	AMS/gt	Check:
Approved:		

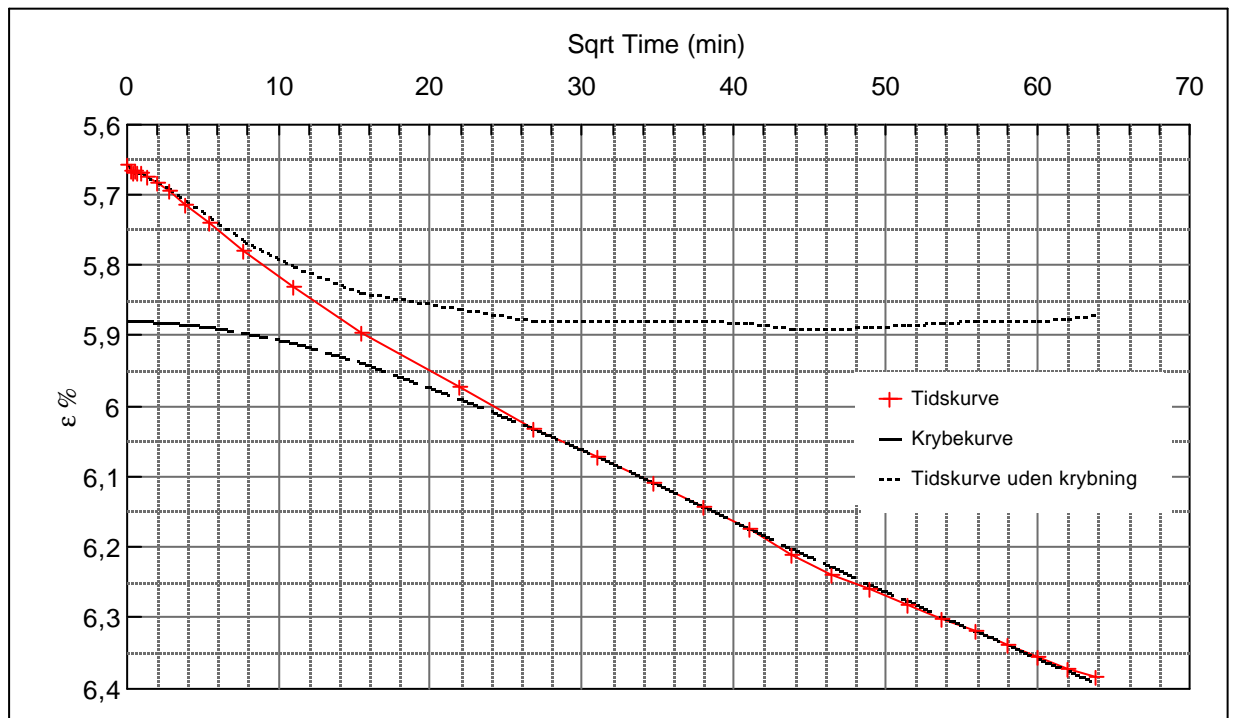
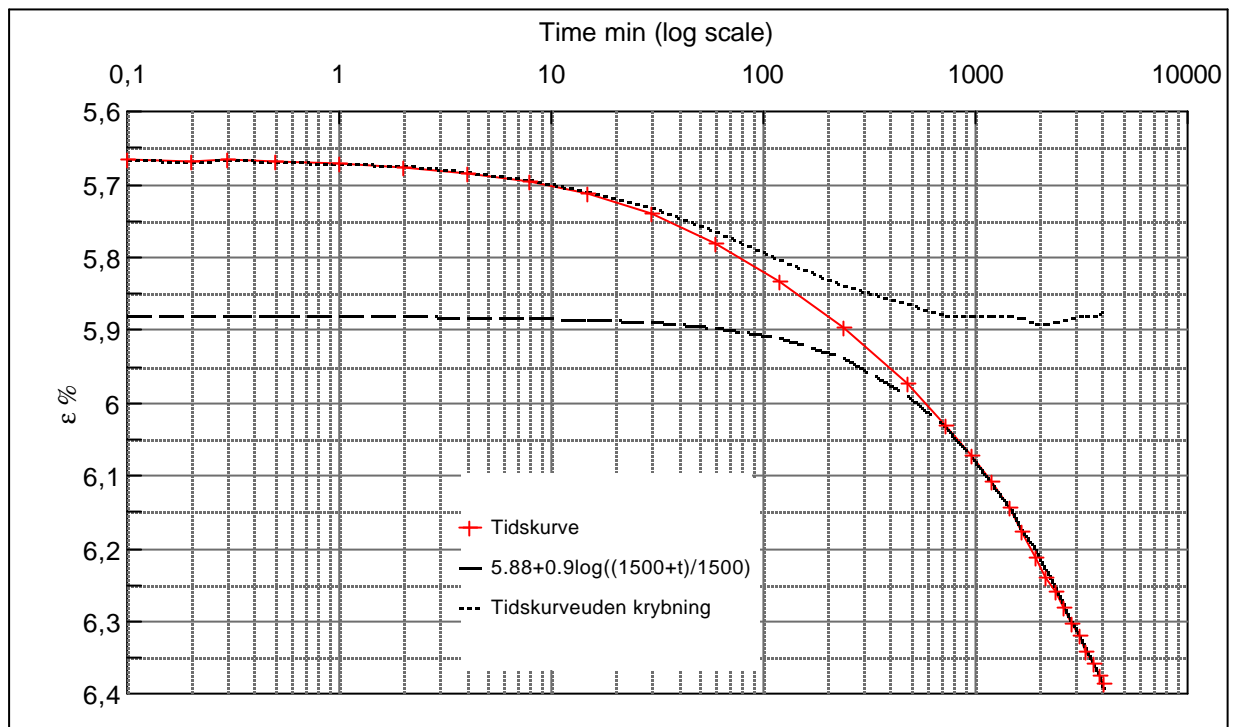
Step no 17	σ	kPa	ϵ	%	ϵ_i		tc in sec	15360
	Before	3.472,0	ϵ_0	5,40	ϵ_c %	5,52	K i kPa	285.171
	After	3.819,0	$\epsilon_{\sim\#}$	5,66	ϵ_s	0,23	k10 m/sec	2,2E-12
					ϵ_{kryb}	0,14	ck10 m ² /sec	6,31E-08



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.19
Executed:	AMS/gt	Check:
Approved:		

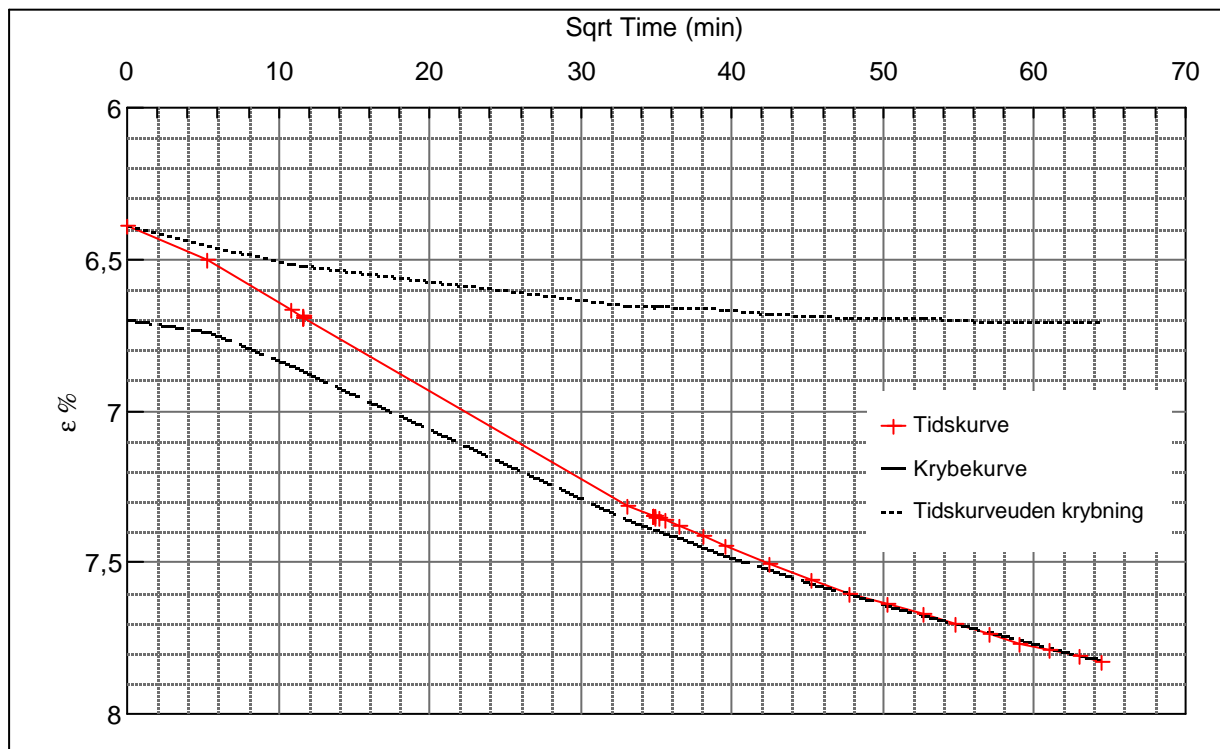
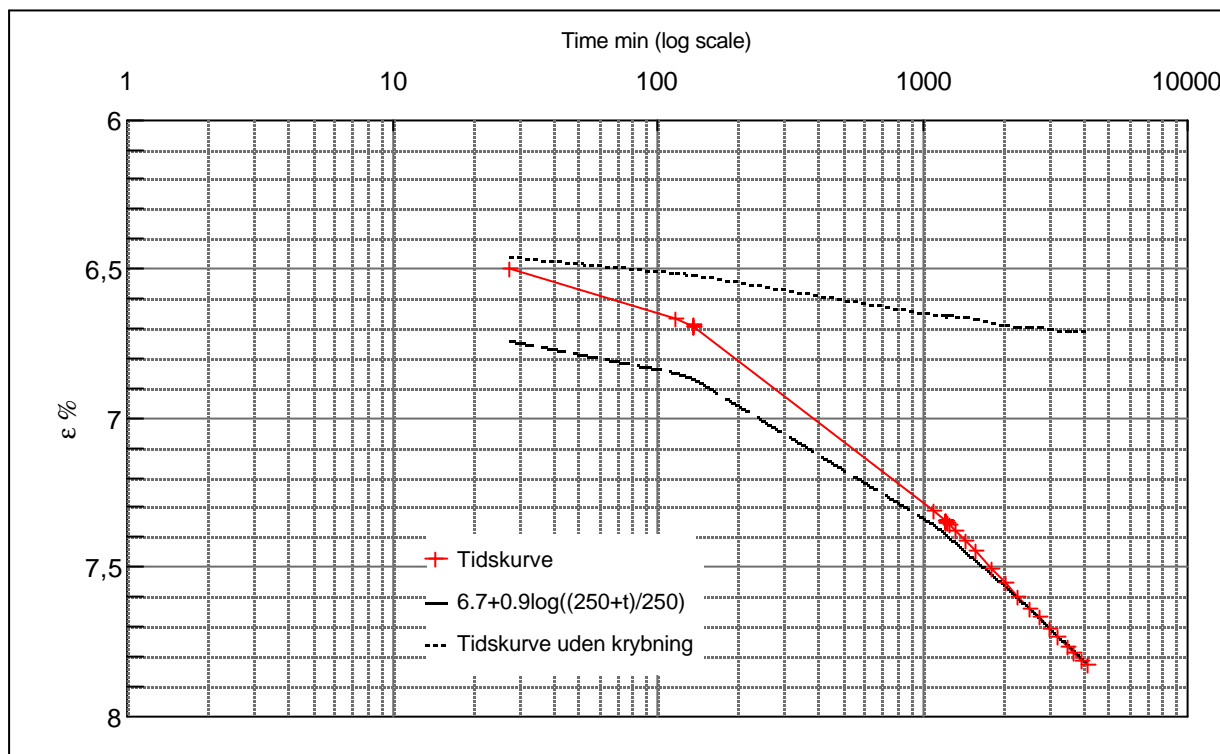
Step no 18	σ	kPa	ε	%	ε_i		tc in sec	11760
	Before	3.819,0	ε_0	5,66	ε_c %	5,88	K i kPa	234.783
	After	4.339,4	$\varepsilon_{\sim\#}$	6,39	ε_s	0,53	k10 m/sec	3,4E-12
					ε_{kryb}	0,51	ck10 m ² /sec	8,25E-08



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
Executed: AMS/gt		Encl. No 12.20
Approved:		Check:

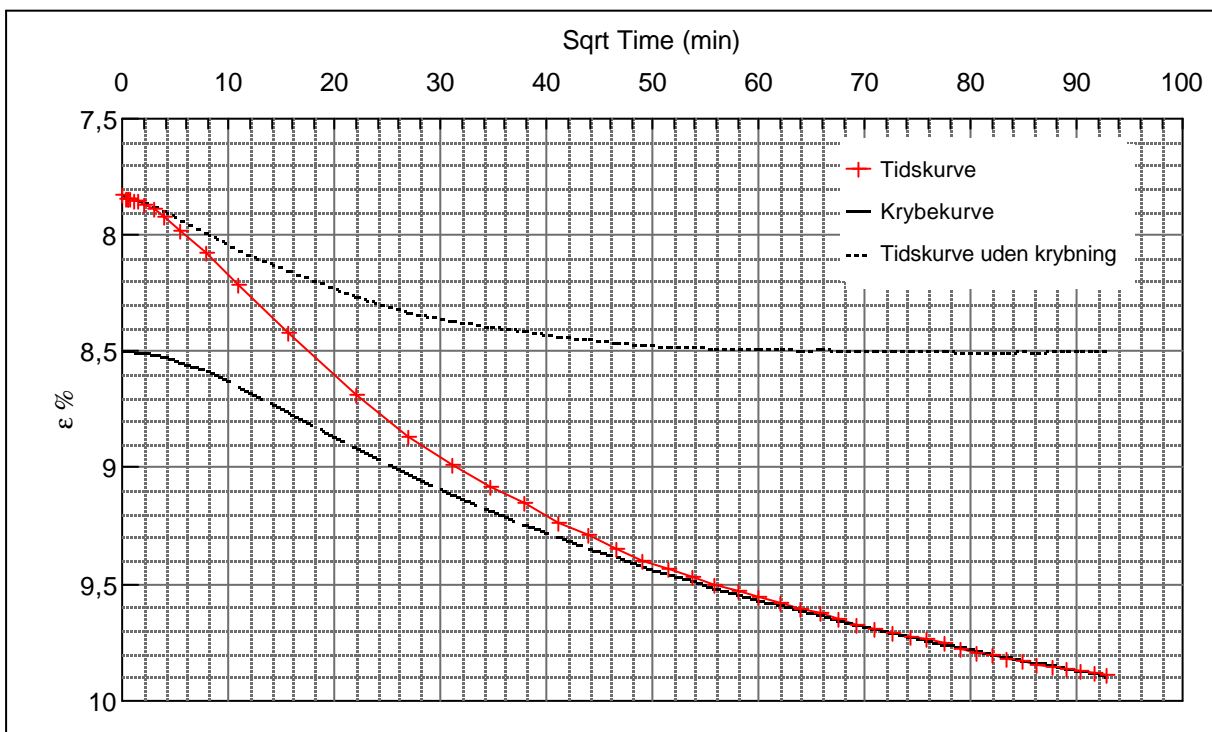
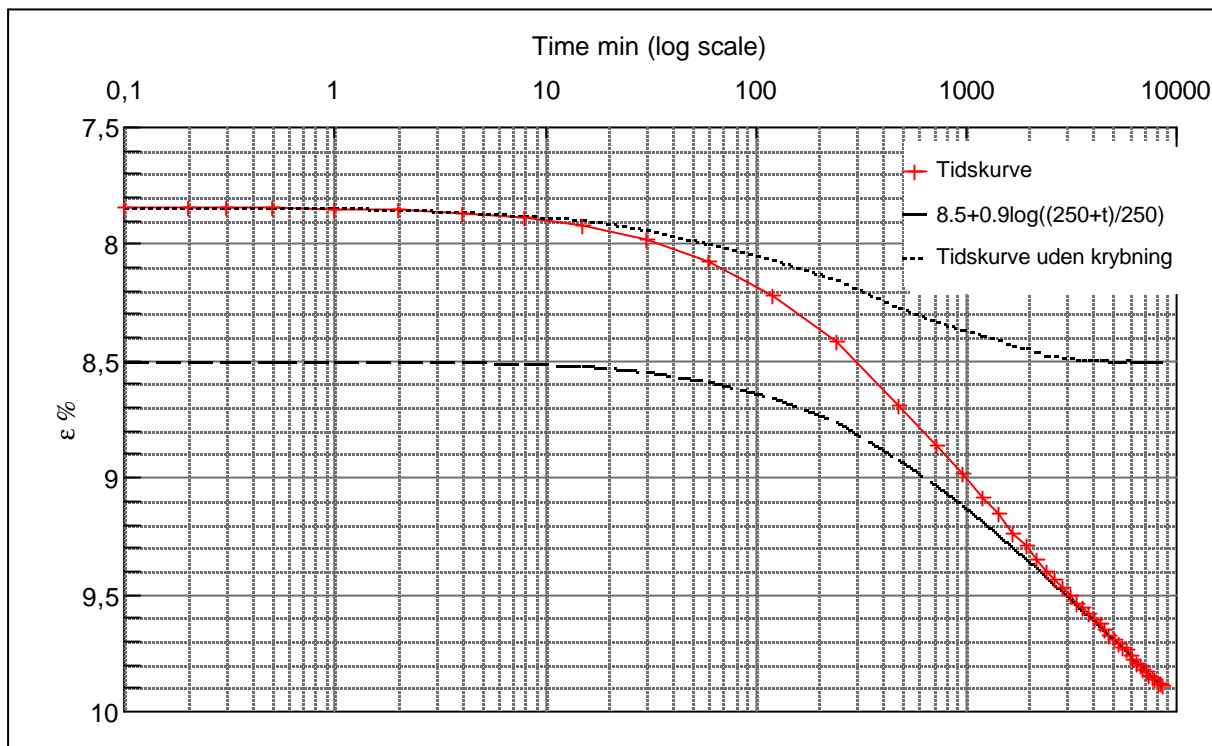
Step no 19	σ	kPa	ϵ	%	ϵ_i	tc in sec	8640
	Before	4.339,4	ϵ_0	6,39	ϵ_c %	K i kPa	223.844
	After	5.033,3	$\epsilon_{\sim\#}$	7,83	ϵ_s	k10 m/sec	4,9E-12
					ϵ_{kryb}	k10 m^2/sec	1,12E-07



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU
	Encl. No 12.21
Executed: AMS/gt	Check:
Approved:	

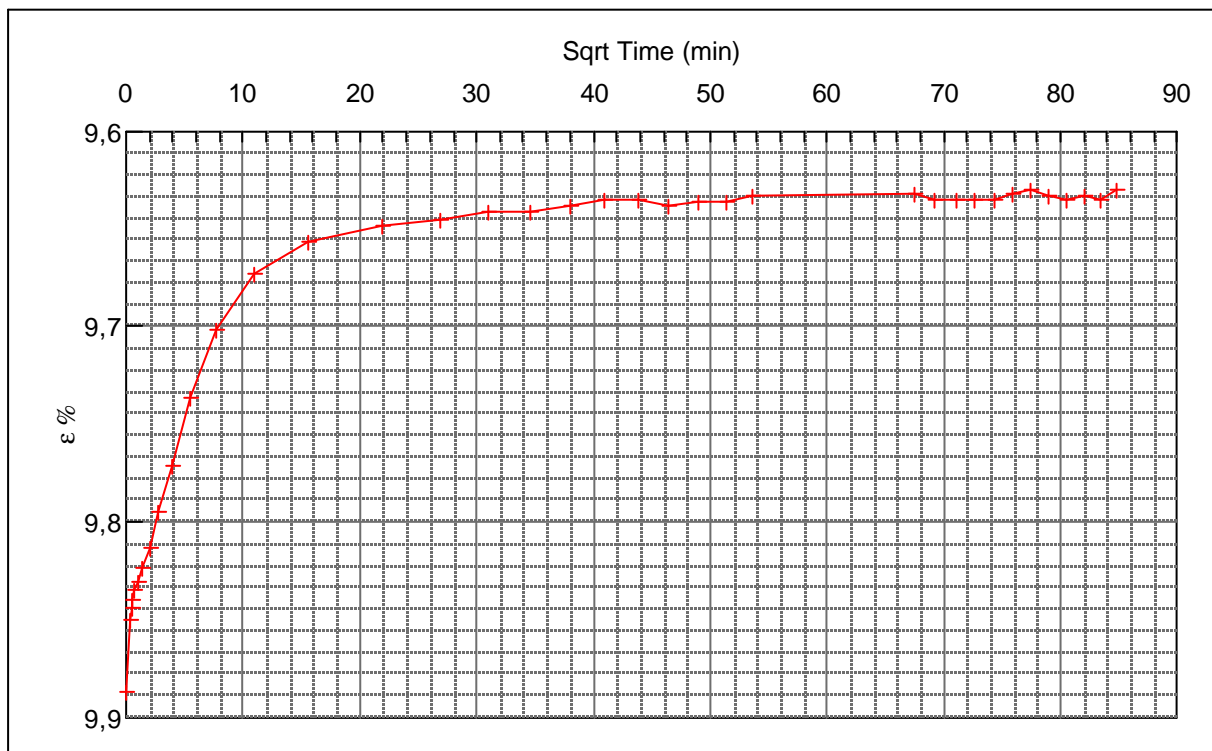
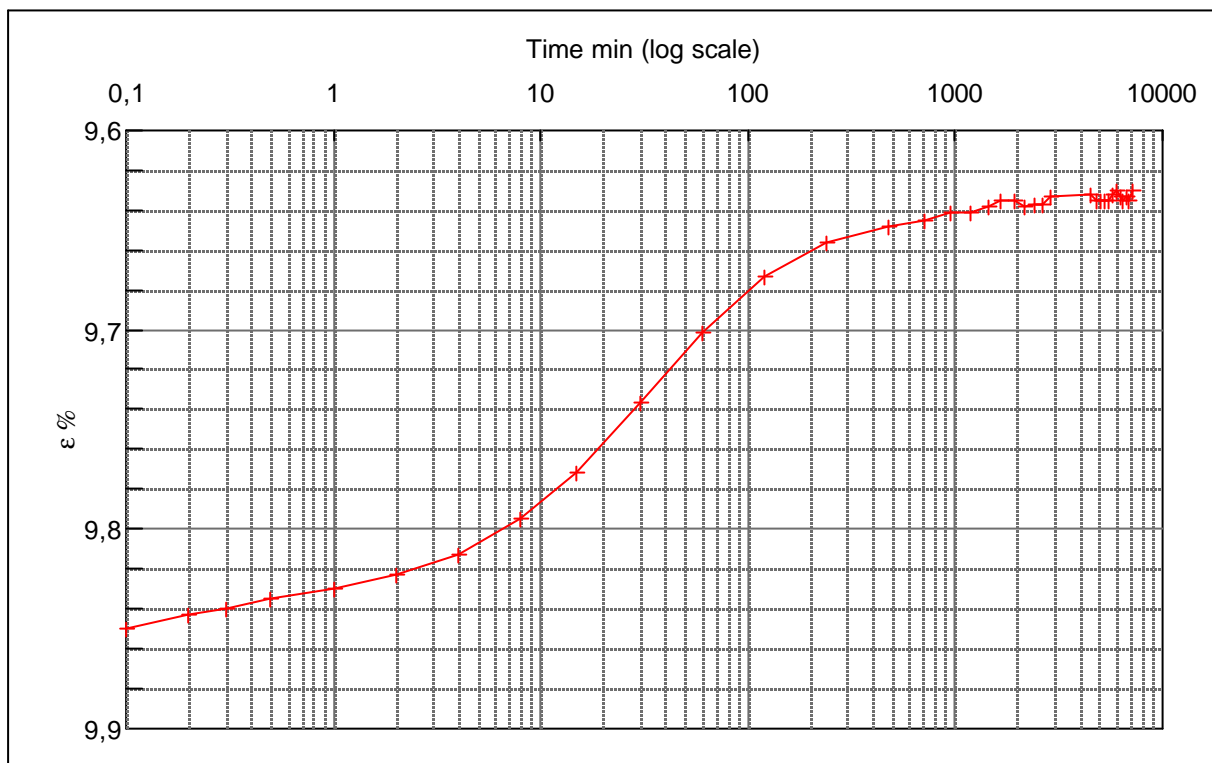
Step no 20	σ	kPa	ε	%	ε_i	tc in sec	19440
	Before	5.033,3	ε_0	7,83	ε_c %	K i kPa	154.585
	After	6.074,2	$\varepsilon_{\sim\#}$	9,89	ε_s	k10 m/sec	3,2E-12
					ε_{kryb}	ck10 m ² /sec	4,99E-08



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.22
Executed:	AMS/gt	Check:
Approved:		

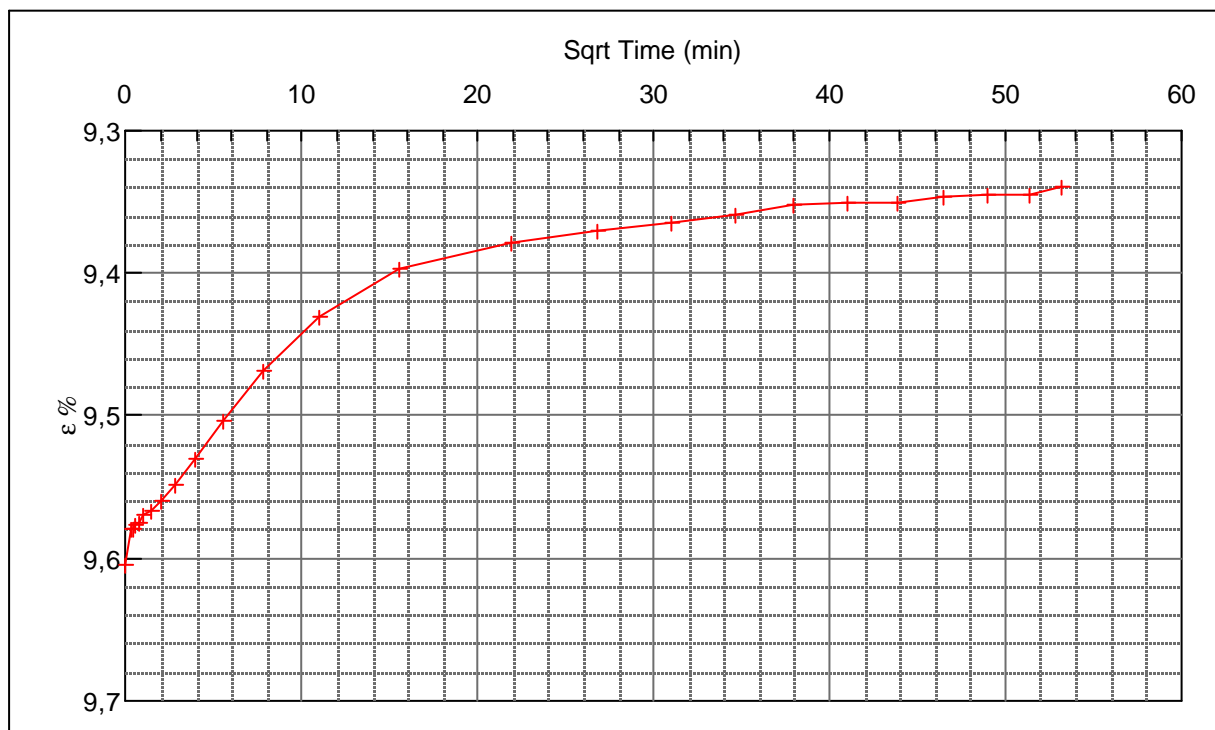
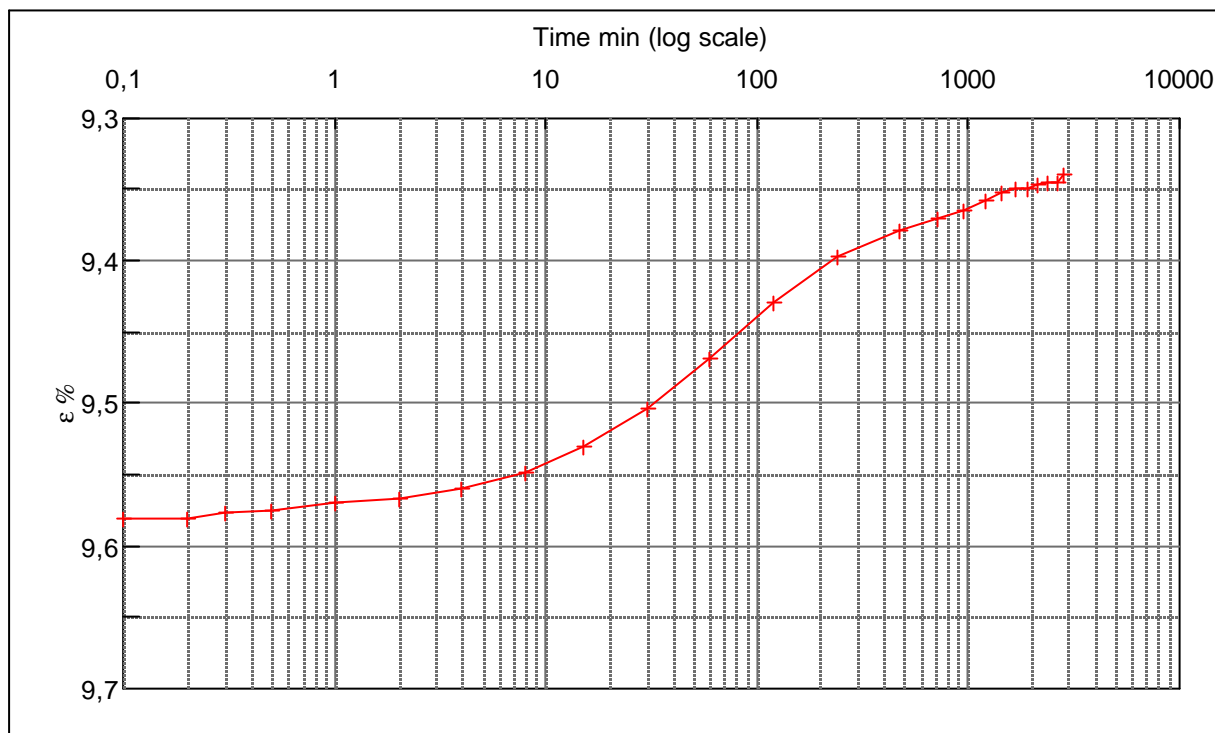
Step no 21	σ	kPa	ε	%	ε_i	tc in sec	7260
	Before	6.074,2	ε_0	9,89	ε_c %	K i kPa	1.013.838
	After	3.472,0	$\varepsilon_{-#}$	9,63	ε_s	k10 m/sec	1,3E-12
					ε_{kyb}	ck10 m^2/sec	1,34E-07



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU
	Encl. No 12.23
Executed: AMS/gt	Check:
Approved:	

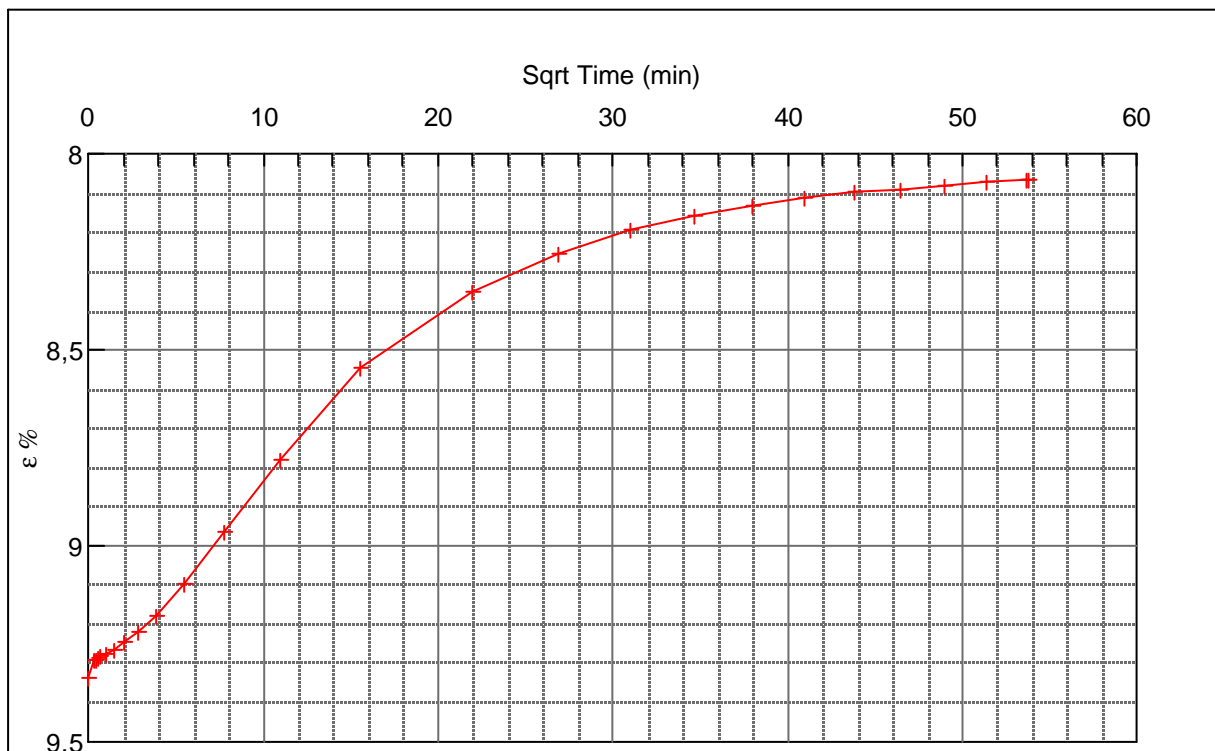
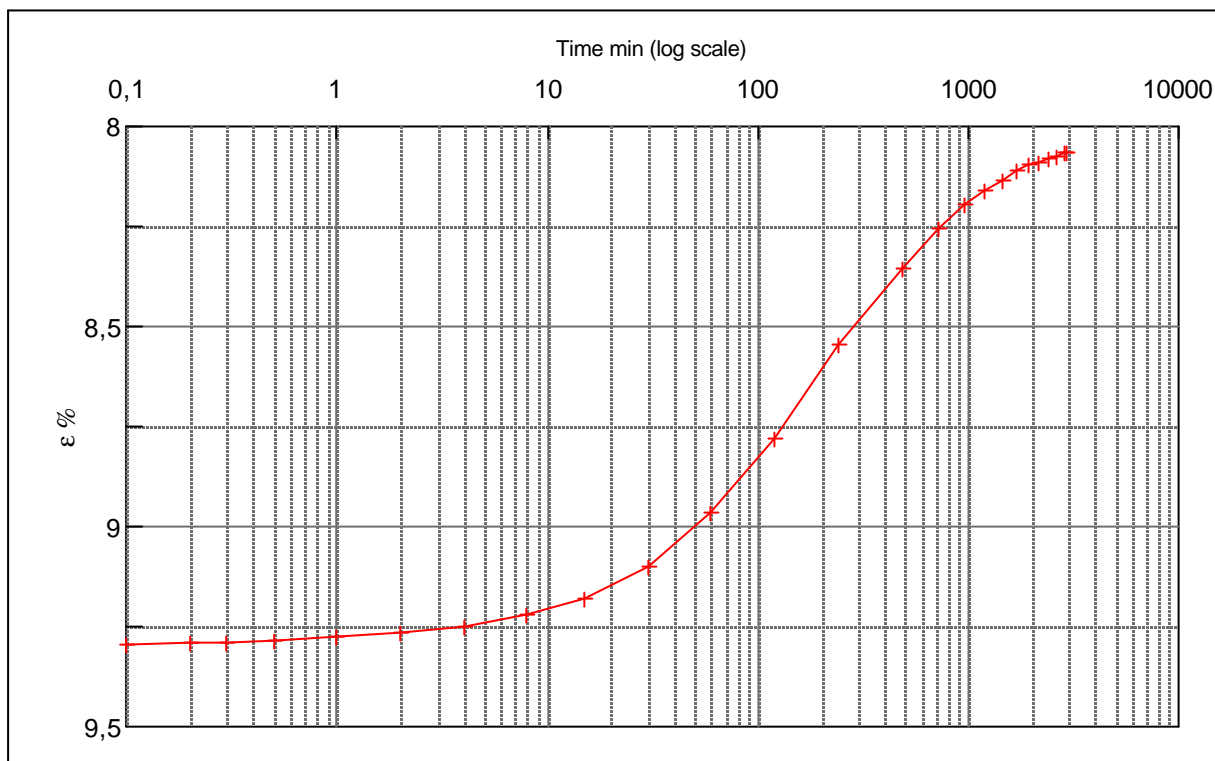
Step no 22	σ	kPa	ε	%	ε_i	tc in sec	15360
	Before	3.472,0	ε_0	9,61	ε_c % 9,34	K i kPa	392.782
	After	2.431,1	$\varepsilon_{\sim\#}$	9,34	ε_s	k10 m/sec	1,6E-12
					ε_{kryb}	ck10 m ² /sec	6,31E-08



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.24
Executed:	AMS/gt	Check:
Approved:		

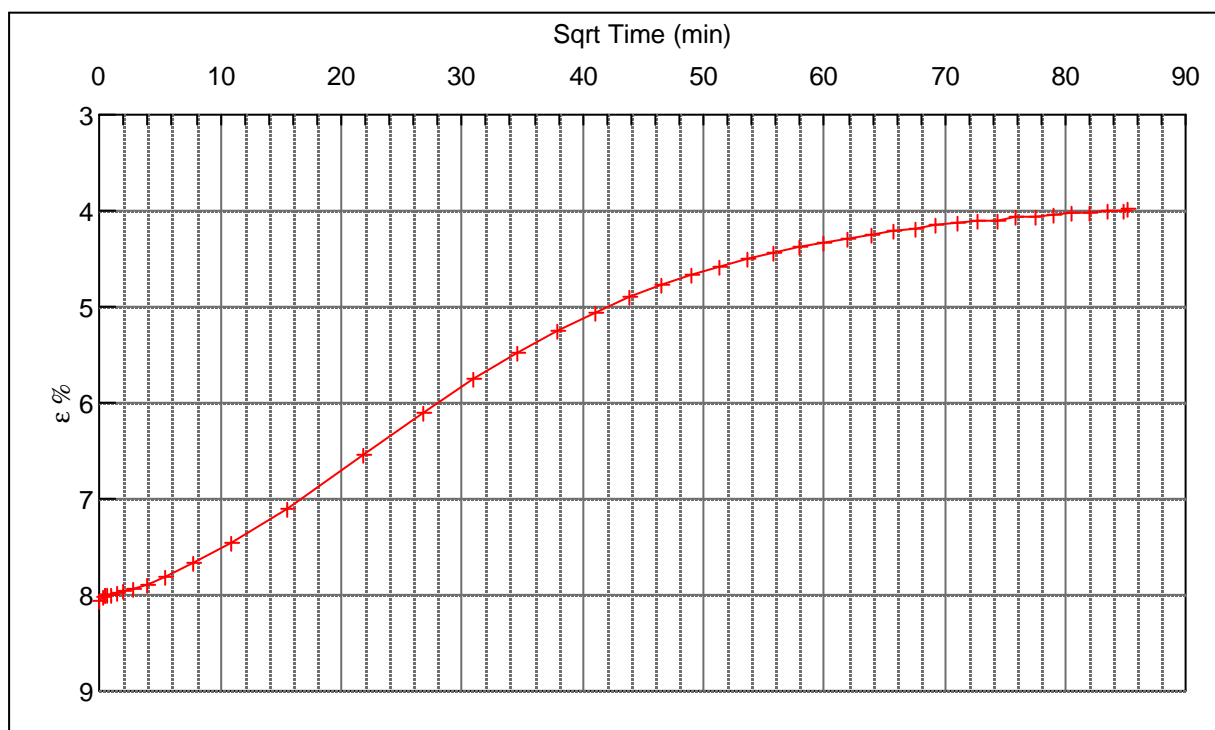
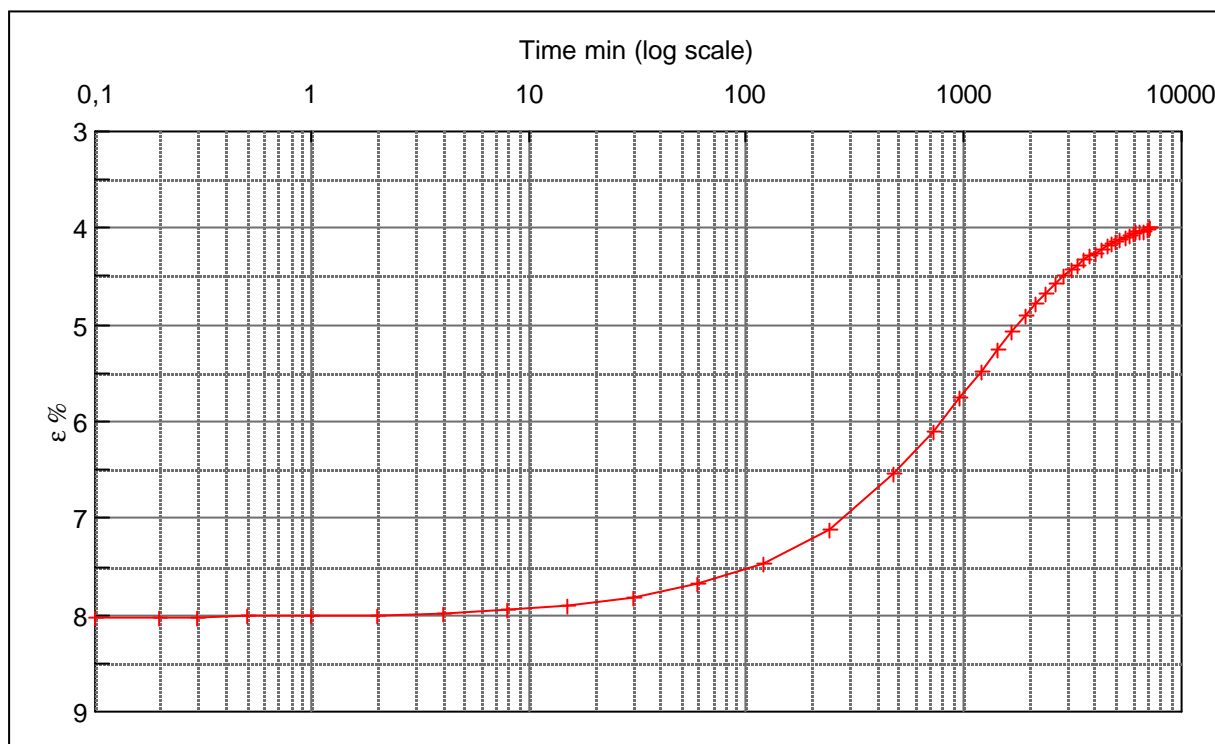
Step no 23	σ	kPa	ε	%	ε_i		tc in sec	37500
	Before	2.431,1	ε_0	9,34	ε_c %	8,06	K i kPa	108.679
	After	1.043,3	$\varepsilon_{-#}$	8,06	ε_s		k10 m/sec	2,3E-12
					ε_{kyb}		ck10 m^2 /sec	2,59E-08



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU
	Encl. No 12.25
Executed: AMS/gt	Check:
Approved:	

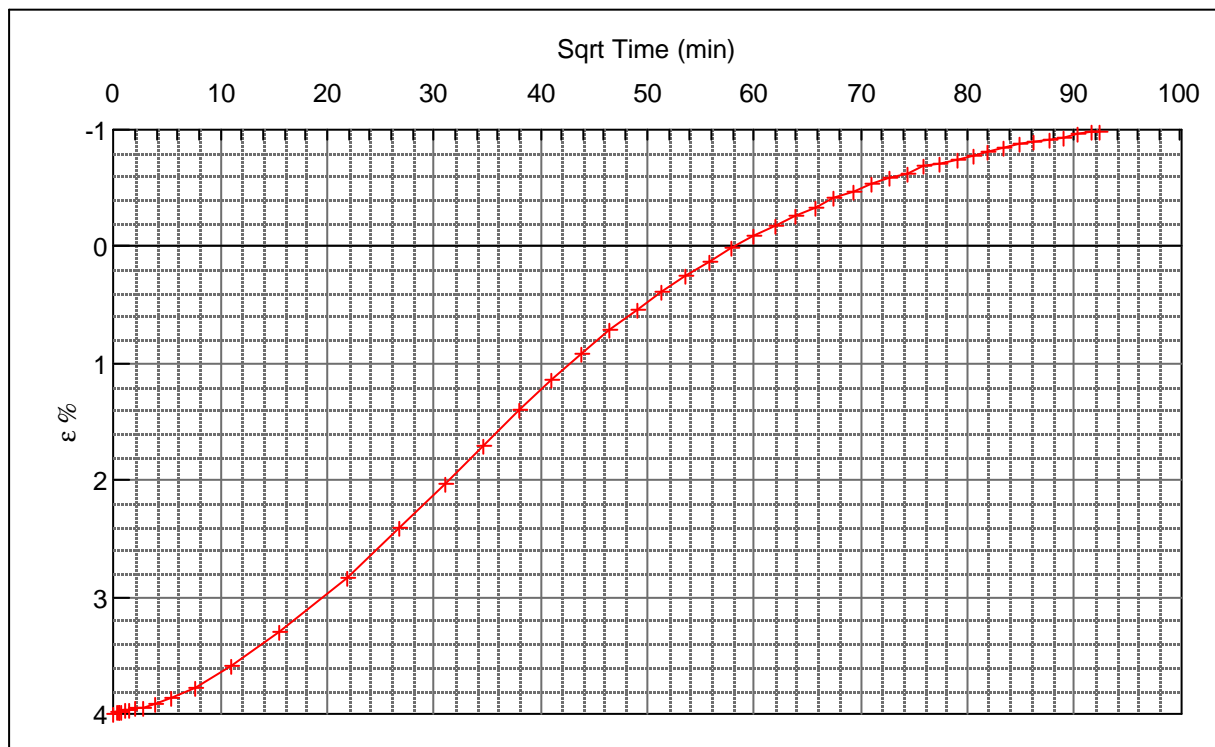
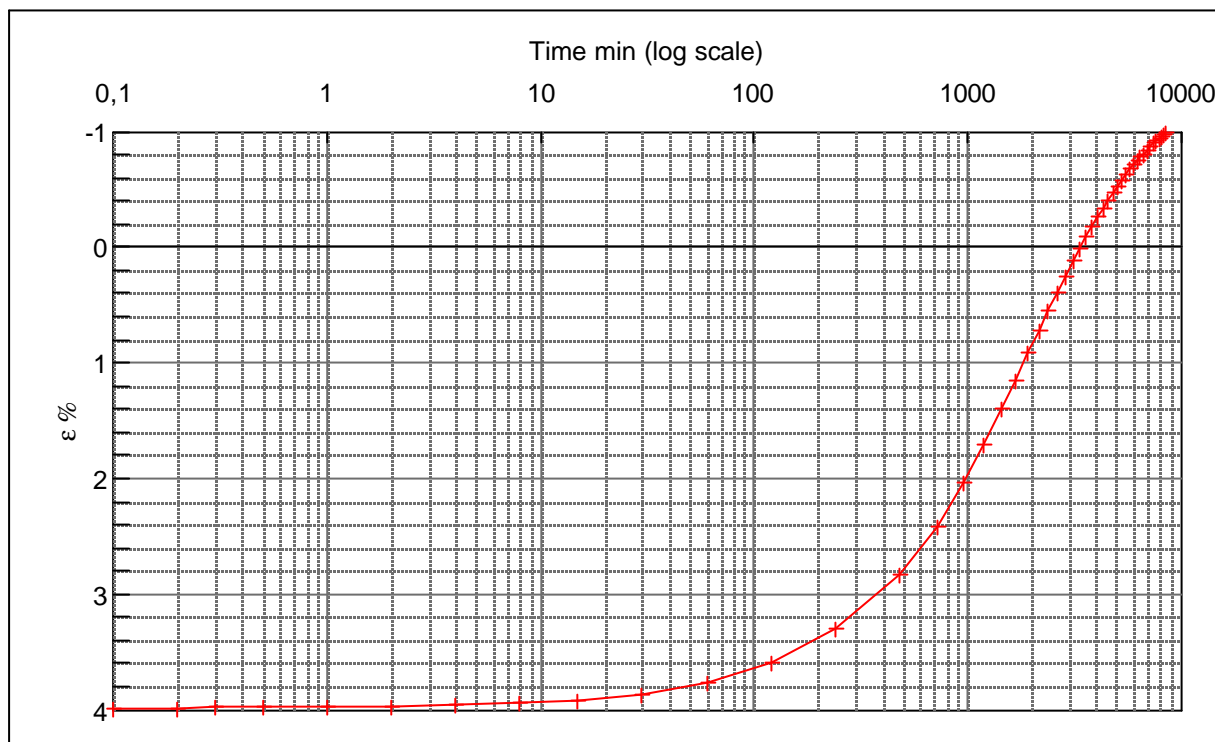
Step no 24	σ	kPa	ε	%	ε_i	tc in sec	156060
	Before	1.043,3	ε_0	8,06	ε_c %	K i kPa	21.305
	After	175,9	$\varepsilon_{\sim\#}$	3,99	ε_s	k10 m/sec	2,9E-12
					ε_{kryb}	ck10 m^2/sec	6,21E-09



Material: Clay, Eemian, Interglacial		
Bor no :	1	Depth: 58.8 m.b.s
Lab. no:	P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby		AAU
		Encl. No 12.26
Executed:	AMS/gt	Check:
Approved:		

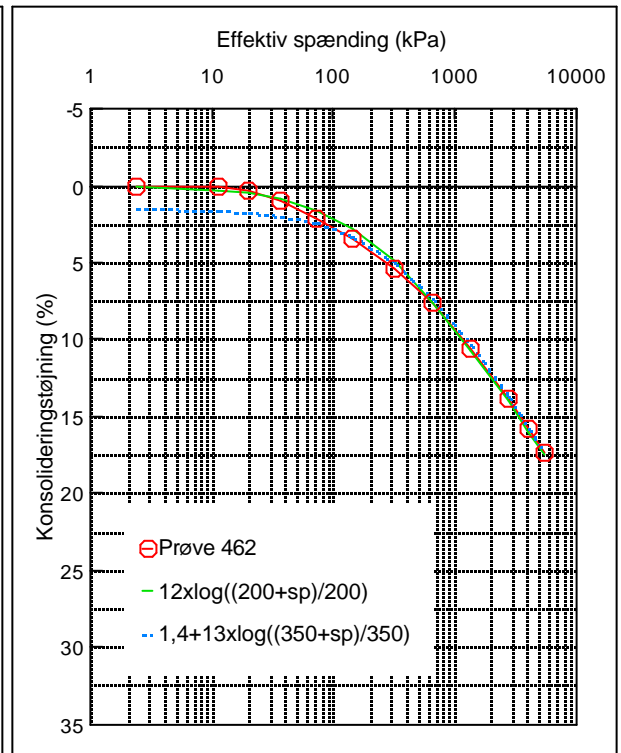
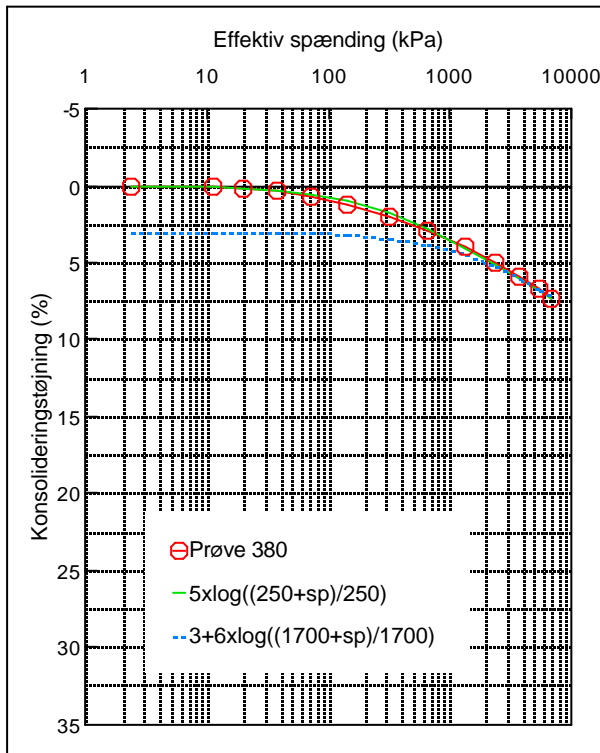
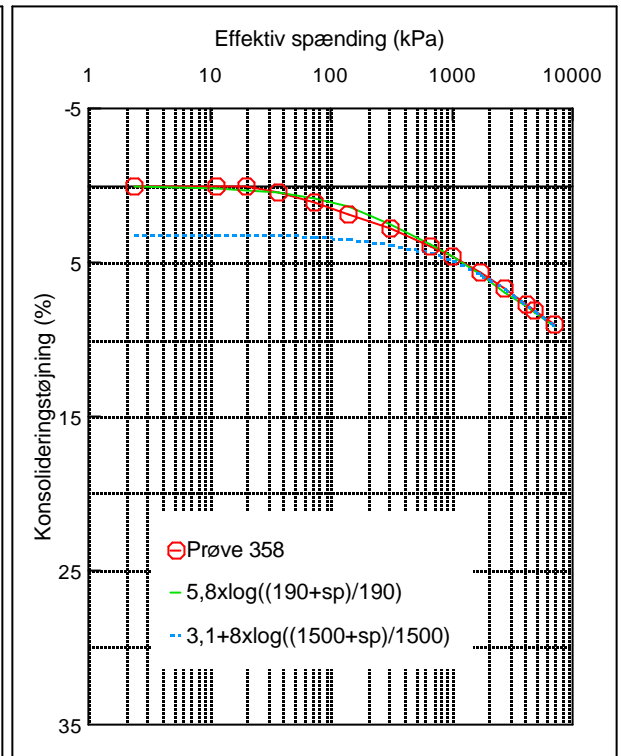
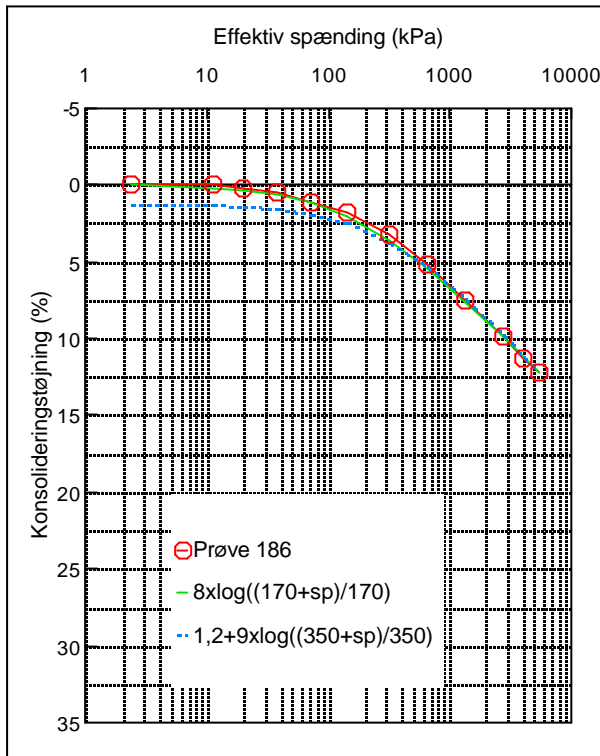
Step no 25	σ	kPa	ϵ	%	ϵ_i	tc in sec	253500
	Before	175,9	ϵ_0	3,99	ϵ_c % -1	K i kPa	3.475
	After	2,43	$\epsilon_{\sim\#}$	(1,00)	ϵ_s	k10 m/sec	1,1E-11
					ϵ_{kryb}	ck10 m^2 /sec	3,83E-09



Material: Clay, Eemian, Interglacial	
Bor no : 1	Depth: 58.8 m.b.s
Lab. no: P 7	Insitu stress ~550 kPa

Job: Nørre Lyngby	AAU
	Encl. No 12.27
Executed: AMS/gt	Check:
Approved:	

Senglacialt ler. Arbejdskurver fra konsolideringsforsøg med tilpassede Terzaghi-kurver



Job: Nørre Lyngby

AAU

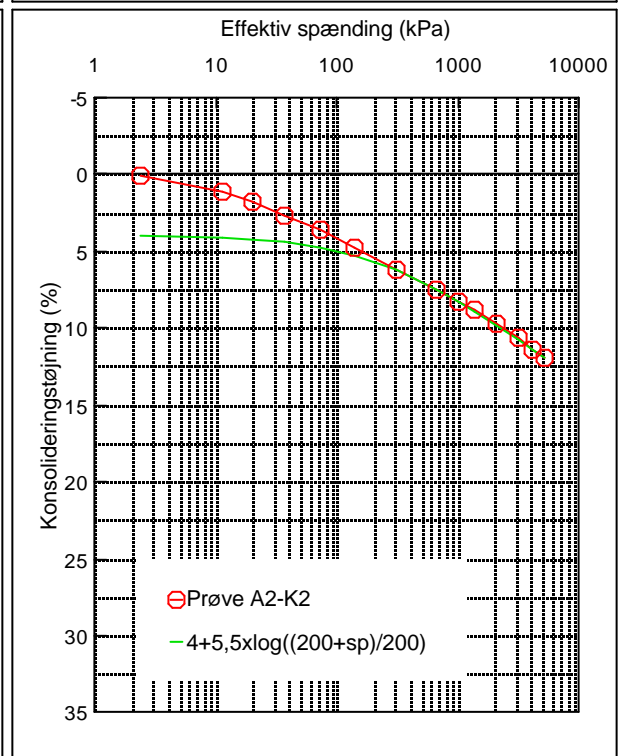
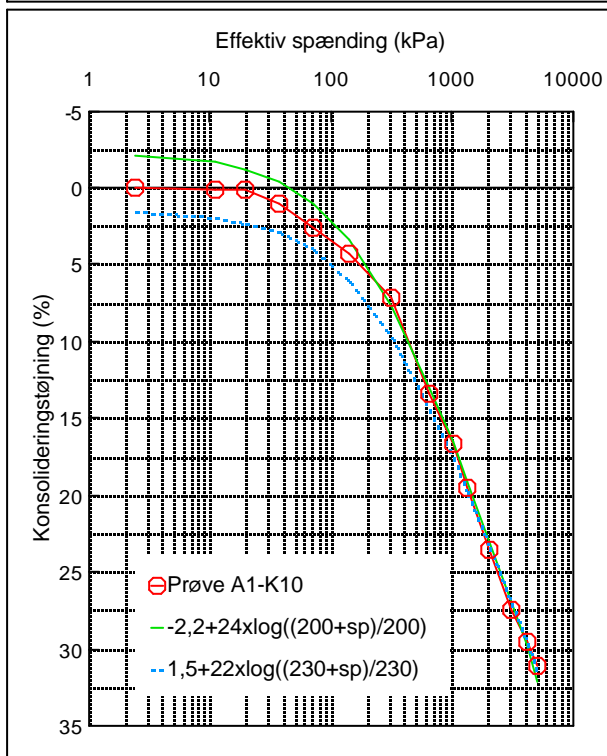
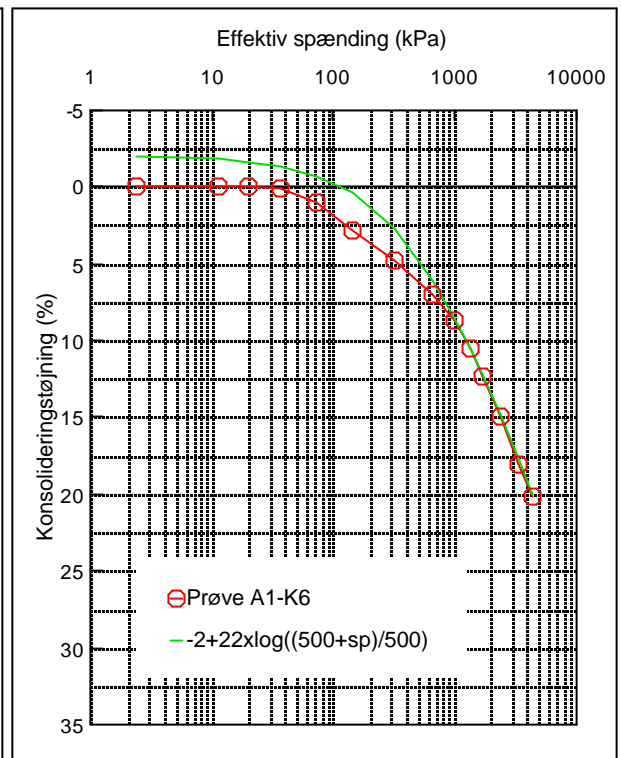
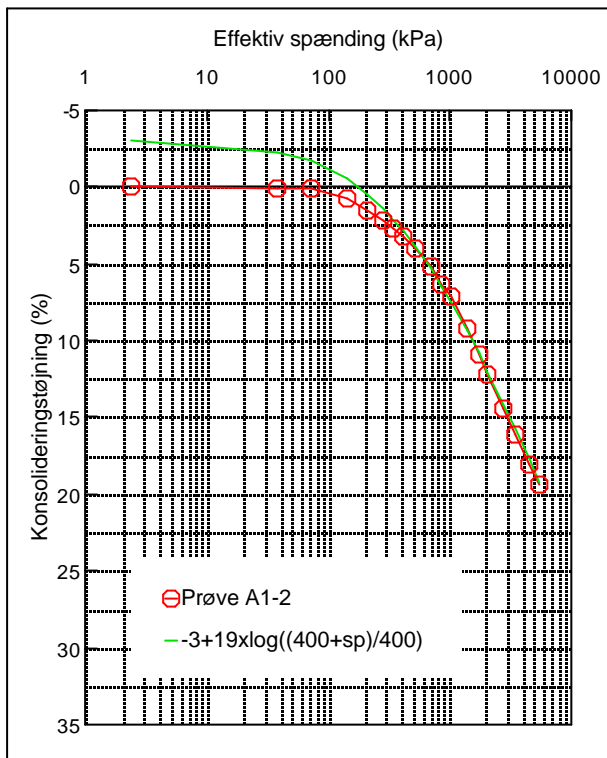
Encl. No:
13.1

Executed: gt

Check:

Approved:

Senglacialt ler. Arbejdskurver fra konsolideringsforsøg med tilpassede Terzaghi-kurver



Job: Nørre Lyngby

AAU

Encl. No:
13.2

Executed: gt

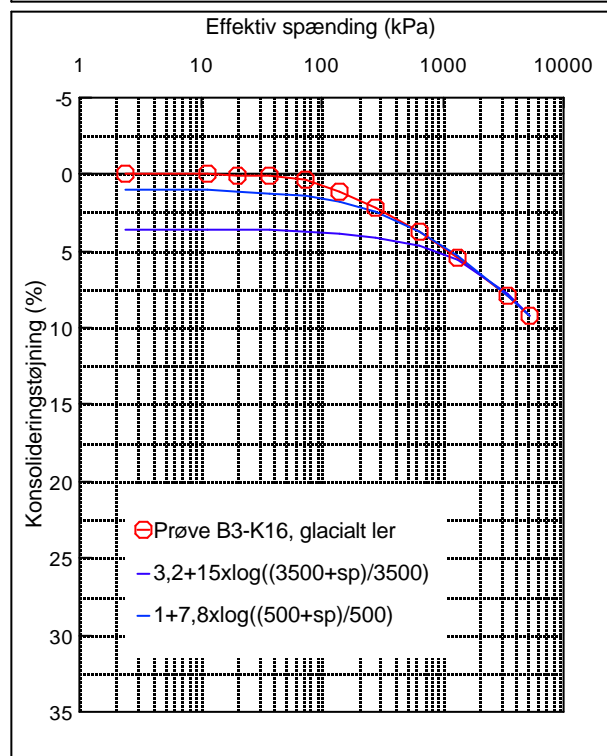
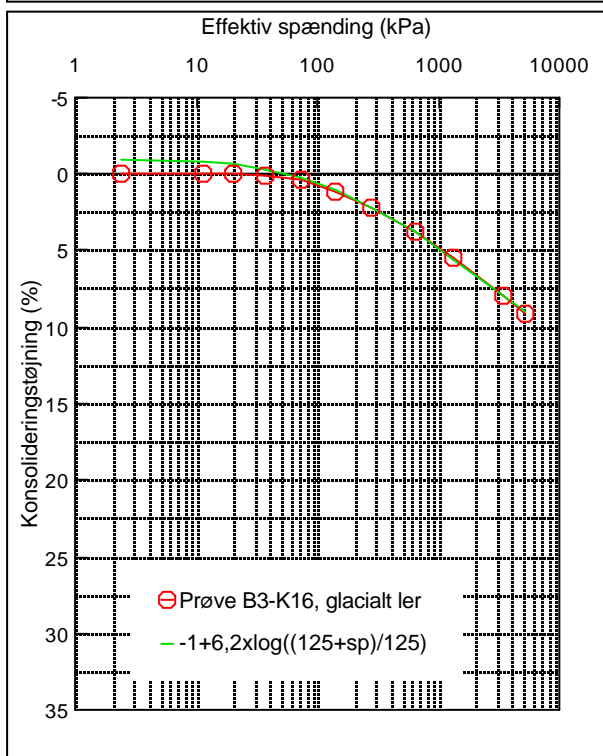
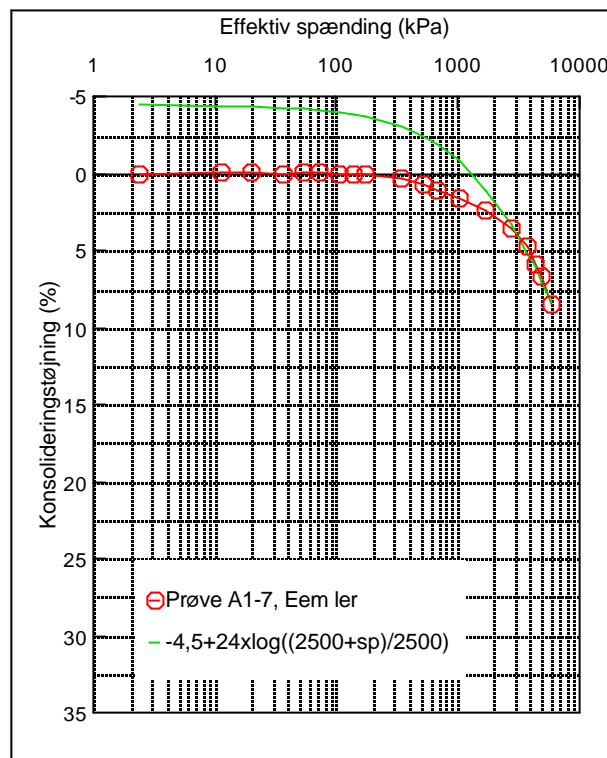
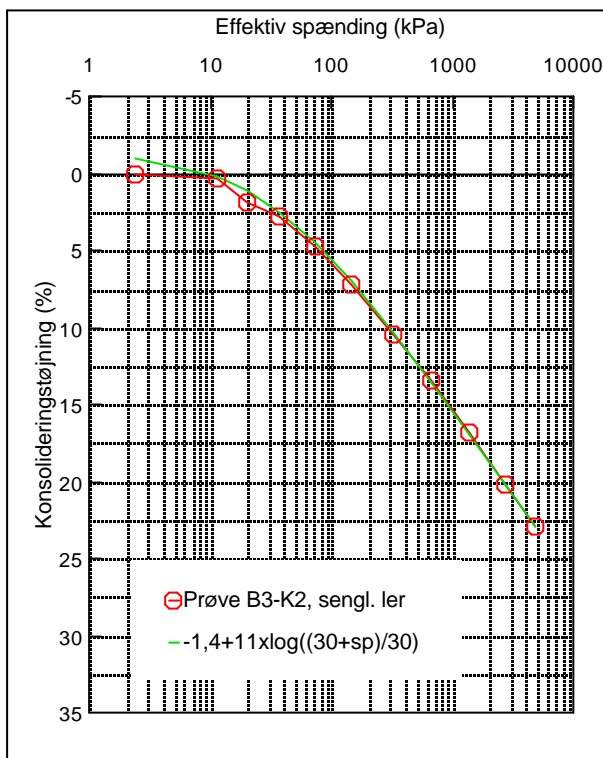
Approved:

Check:

Geotechnical Engineering group
Department of Civilengineering
Aalborg University

Senglacialt ler, Glacialt ler og Eem ler.

Arbejdskurver fra konsolideringsforsøg med tilpassede Terzaghi-kurver



Job: Nørre Lyngby

AAU

Encl. No:
13.3

Executed: gt

Check:

Approved: